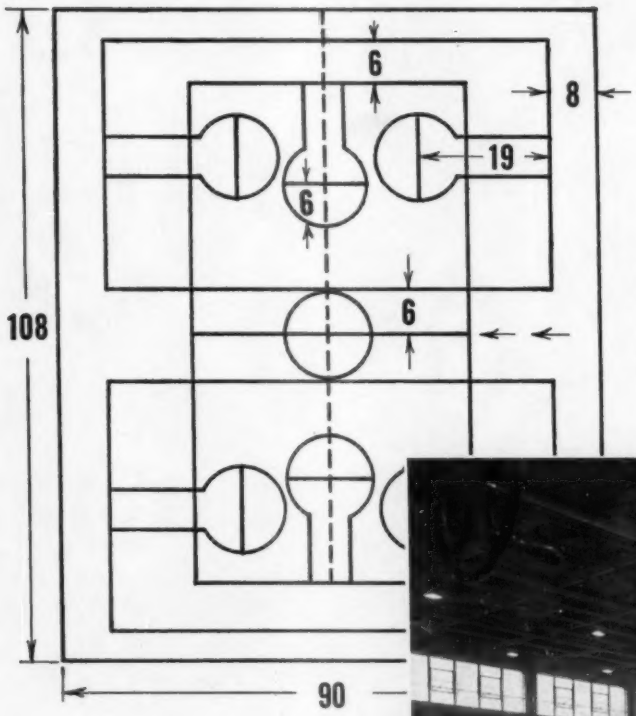
A Periodical of School Administration

the AMERICAN SCHOOL BOARD JOURNAL



How to Plan the Gymnasium

A three-part survey to help you provide your high school gymnasium facilities.

(see page 44)

October, 1958

SCIENTIFIC CONCEPT

The new #410 study top chair-desk by VIRCO is a new scientific design for junior and senior high school seating. It features posture-correct, multiple contoured seat and deep curved back with new free-form lines in both top and chair design. This affords the student easy in and out access, **plus** extra seating area and freedom of movement, resulting in greater knee clearance and relaxed comfort. This new #410 by Virco is a sturdy yet movable unit which offers maximum versatility in seating arrangements. Note the graceful lines of the tapered legs, with their rubber-cushioned, nickel-plated, pivotal glides. For complete specifications, write to: Dept. **ASBJ** , Virco Mfg. Corp., P. O. Box 44846, Station H, Los Angeles, Calif., or Virco Mfg. Corp., Conway, Ark.

VIRCO

Woodrow Wilson High School, Portsmouth, Va. J. Binford Walford & O. Pendleton Wright, architects, Richmond; William A. Brown, mechanical engineer, Washington, D. C.

Give Your School An Ideal Thermal Environment With Johnson Pneumatic Temperature Controls

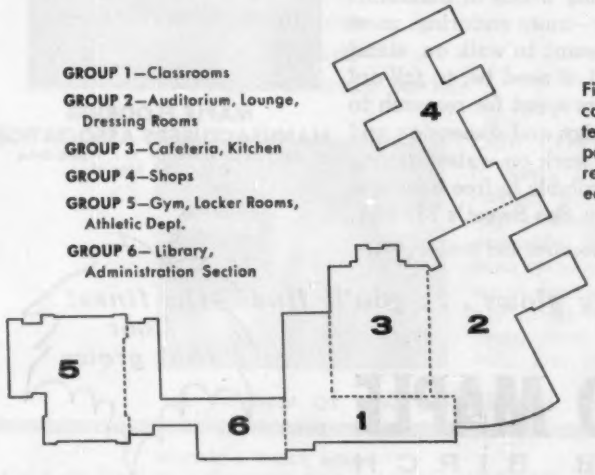
Smooth, efficient temperature control gives this modern school a consistently stimulating thermal environment that helps keep students alert and encourages better work and study.

Flexible, precise regulation of all air conditioning, heating and ventilating equipment is provided by a specially planned Johnson Pneumatic Temperature Control System. With a thermostat in every room, the exact conditions desired are maintained, room by room, throughout the building, regardless of differences in exposure, occupancy levels, room sizes, usage or other factors affecting comfort.

This system, like every Johnson System, was engineered for economy as well as comfort. For example, the use of Johnson *Dual* Thermostats, as described in the illustration, makes complete provision for the comfort of after-hours occupants while effecting major savings in operating costs.

Johnson Pneumatic Control Systems are backed by over 73 years' specialized experience in the school field, experience that assures you of getting an ideal teaching and learning environment at the lowest possible heating and cooling cost.

When you build or modernize, talk to your consulting engineer, architect or local Johnson representative about the unmatched comfort and economy features of a Johnson Pneumatic Control System. Johnson Service Company, Milwaukee 1, Wisconsin. Direct Branch Offices in Principal Cities.



First floor plan shows how groups of Johnson *Dual* Thermostats can be reset, from a central point, to operate at economy temperature levels when the school is not in use or only partly occupied. Simply pressing a button on the thermostat restores any room to comfort status, *without affecting the economy settings of the other thermostats.*

JOHNSON CONTROL

PNEUMATIC SYSTEMS

DESIGN • MANUFACTURE • INSTALLATION • SINCE 1885

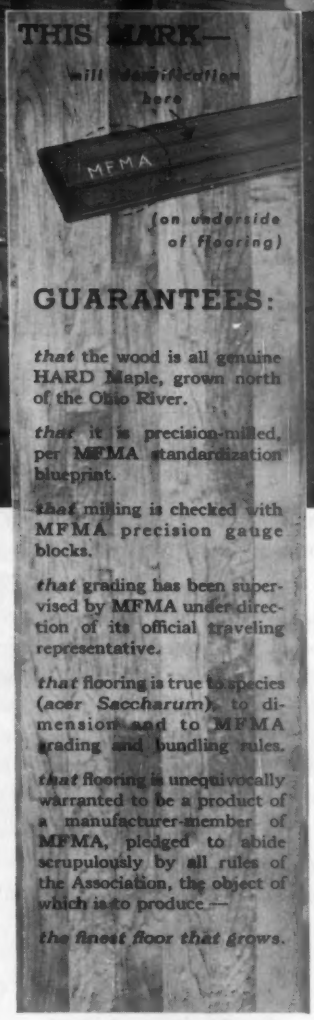
Gymnasium, Riverside School, Riverside, Ill., floor of First Grade Northern Hard Maple.
Architects: Schmidt, Garden & Erikson, Chicago. Photograph courtesy Hedrich-Blessing, Chicago.

—by all means for floors meant for feet!

Physical education and athletic authorities *all* approve floors of Northern Hard Maple. Few of them will accord even reluctant acceptance to any other kind of floor. That's a documented fact.* And the reasons voiced aren't whims, but expert judgment that demands the respect of school building committees.

Certainly, genuine MFMA-millmarked Northern Hard Maple, properly laid, costs a bit more than splintering woods or makeshift synthetics. But it's *enormously* better—more enduring, more resilient, brighter, tighter, warmer, more pleasant to walk on, stand on, run on, jump on, dance on and, if need be, to *fall* on! It's backed by many thousands of dollars spent for research to improve manufacturing, uniformity of design and dimension and *proper kiln drying*. MFMA educational work on waterproofing and trouble-free installation methods is available in free booklets, pamphlets and technical research papers. See Sweet's 13j-MA.

*Ask for Coaches' Survey Summary, available to all Architectural and School people.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(on underside of flooring)
GUARANTEES:
that the wood is all genuine HARD Maple, grown north of the Ohio River.
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that flooring is unequivocally warranted to be a product of a manufacturer-member of MFMA, pledged to abide scrupulously by all rules of the Association, the object of which is to produce—
the finest floor that grows.

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where wordless "welcome" softly glows . . . you'll find the finest floor that grows

NORTHERN HARD MAPLE
BEECH and BIRCH

THE AMERICAN
School Board Journal

for October, 1958

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OUR COVER . . .

In times when bond issues are severely challenged, planning each department of the new high school for appropriate facilities is most desirable. Since the gymnasium is one of the most expensive areas of the new high school, we're featuring a comprehensive three-part survey (page 44) with basic data, floor installation hints, and an equipment selection guide to help you provide the right facilities.

A review of your JOURNAL for October (pg. 4) ⟶

WILLIAM C. BRUCE, Editor
Published on the 25th of the month preceding the date of issue by THE BRUCE PUBLISHING COMPANY, 400 North Broadway, Milwaukee 1, Wisconsin. CENTRAL OFFICE: 20 North Wacker Drive, Chicago 6, Illinois. EASTERN OFFICE: 233 Broadway, New York 7, New York.

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Thoughtful design and construction

-provides new comfort and safety for children of nursery school age

Sit comfortably — stand on front or back of seat — or lean heavily. These chairs won't wobble or collapse.
NO. 231 STEEL SEAT
Easy to handle and carry. Single motion opening and closing simplifies moving chairs from place to place.

Krueger non-collapsing

JUVENILE CHAIRS

remain firm and sturdy under all kinds of usage

Today from Krueger comes a new and needed concept in Juvenile folding chairs. They combine sensible, correct posture design and comfort with *strong, safe* construction. There's little chance for injury because this chair doesn't tip, wobble or collapse under any of the normal gymnastics small children go through. And, there's no pinched finger hazards because Krueger's safety folding hinge sees to that. No dangerous sharp edges or corners either! Built to rigid standards, they feature most of the same strong construction details as Krueger's *dependable performance* adult chairs. Fit them into your seating plans, today.

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NEW FREE CATALOG

Describes the complete line of Krueger chairs, tables and other items in detail. Write for copy.

Demountable CHAIR TRUCKS

Seven standard sizes hold both X-type channel or Y-type tubular chairs — upright or horizontal. Regular or understage models. Demountable ends and exclusive chan-angle frames permit stacking empty trucks one on the other.

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Your JOURNAL *for October*

What the National Defense Education Law of 1958 means to your district and to your students is considered in Elaine Exton's Word from Washington column (page 54) in your JOURNAL for October.

While many specific details of this law are now known, the general provisions and appropriations are, and the article lists these for your reference. As soon as more details are available your Word from Washington department will print them.

Other October features of note:

1. Dr. Magnifico's view (page 29) of what the challenge of special education means to the administrator.

2. A plea for not throwing out the baby with the dirty bath water but for a continuation of driver education (page 23) when the urgings are many and strong for chopping off the "frills" in secondary curricula and concentrating on sterner stuff.

3. When many discussions about salary schedules between boards and teachers' representatives break down, there may well be need for an understanding of basic principles that are agreeable or require further negotiations; with this need in mind, Dr. Von Haden has compiled a model listing of basic principles (page 26) which could serve as a basis for intelligent working out of the annual teacher salary schedule.

4. Dr. Boles' sixth installment (page 38) in his series of eight articles on ways to use school construction funds most effectively.

These, again, are only the highlights. More than a dozen additional articles deserve, we feel, your notice — especially your New Books section which reviews a controversial, perhaps aggravating, and certainly provocative new book on school finance "School Needs in the Decade Ahead" (page 52) by Roger A. Freeman.

for November...

Five practical steps that boards can adopt to meet their stiffest test in an era of crises for our schools are presented by Dr. Pugmire of the University of Oklahoma.

The Editor

SUBSCRIPTIONS. In the United States, Possessions, and Canada, $4.00 a year, payable in advance. Two-year subscriptions will be accepted at $6.00. In all foreign countries, $5.00, two years at $8.00. Single copies, 50 cents.

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EDITORIAL MATERIAL. Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited and will be paid for upon publication. Contributions should be mailed to Milwaukee direct and should be accompanied by return postage if unsuitable. The contents of this issue are listed in the "Education Index."

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Get your students off to a flying start by teaching with the Royal Standard—because there are more Royal Typewriters in office use than any other make.

Royal earned this enviable leadership with *ruggedness:* Royal spends less time in the repair shop than any other make.

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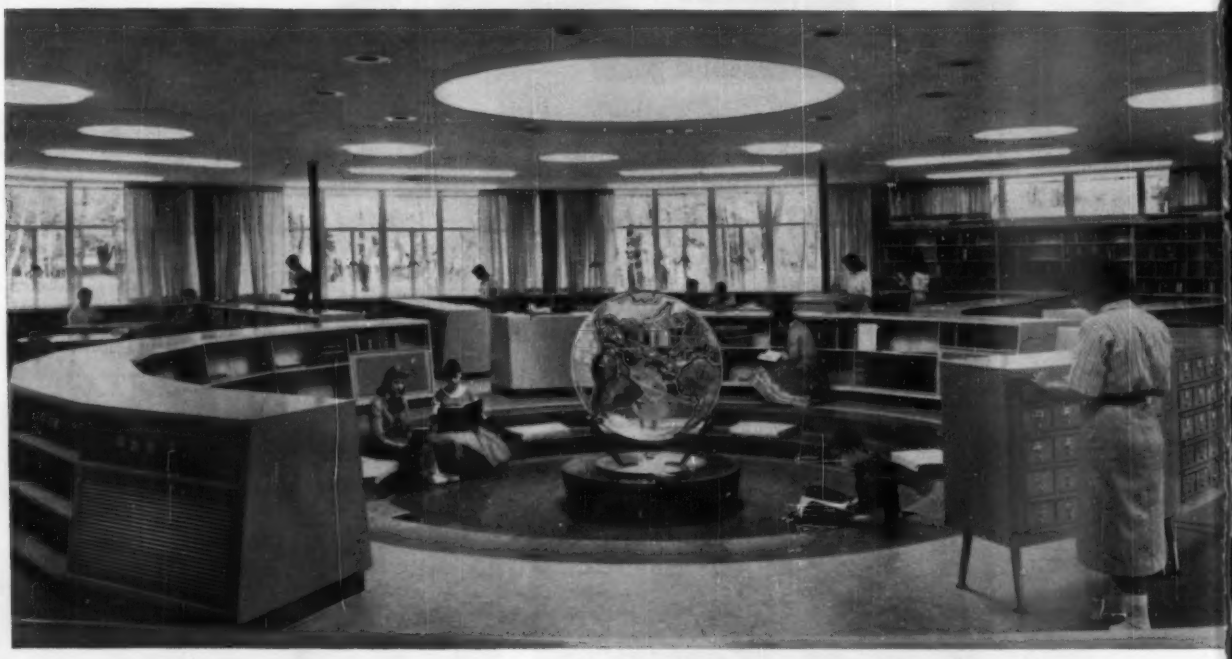
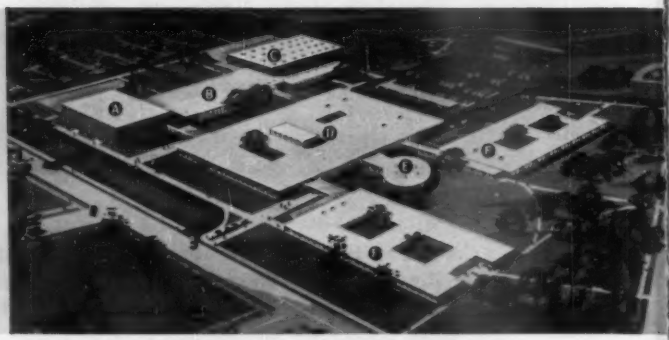


Air conditioned Library, round Building E, shown below.

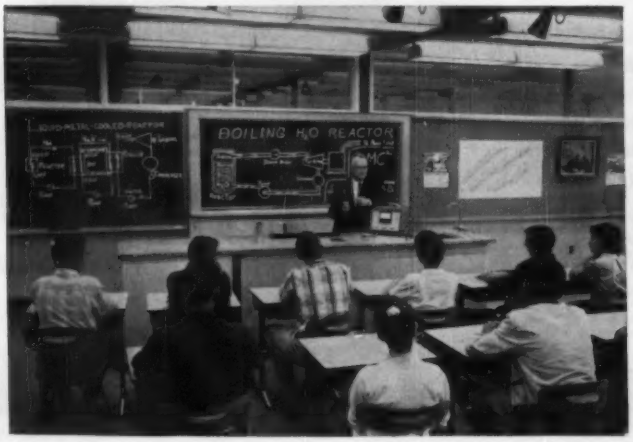
Linton Comprehensive High School
SCHENECTADY, N. Y.

Building A, is air conditioned Auditorium with choral, band and orchestra rooms; B) Cafeteria and multipurpose area; C) Gymnasiums, 3 large, 2 small; D) Core-Tech building with shops, also air conditioned administrative offices, Science, Arts, Family Living and Commerce departments; E) Air Conditioned Library; F) Academic classrooms.

Planned enrollment: 1800. Grades housed: 10th, 11th and 12th. Area 258,157 sq. ft. Construction Cost: $4,328,130.



Schenectady (home of General Electric Co. a pioneer in nuclear power plants) is justly proud of LINTON'S excellent science department. (d-3)



new LINTON HIGH SCHOOL regulated by

POWERS

Pneumatic system of Temperature Control

Architects: PERKINS & WILL
Chicago and White Plains, N. Y.

Associate Architects: RYDER & LINK
Schenectady, N. Y.

Mechanical Engineer:
E. R. GRITSCHKE & ASSOC., INC.
Chicago, Ill.

Heating and Air Cond. Contractor:
TOUGHER HEATING & PLBG. CO.
Albany, N. Y.

"Plan a School that will still be functional in the year 2000"

. . . that was the challenge faced by the educational, architectural and engineering planners of Schenectady's much discussed Linton High School. One of the important innovations here is the year-round air conditioning in the Core-Tech building D, shown on opposite page, also the Auditiorium A, and the round Library building E.

Proper thermal environment is a valuable aid to effective teaching and learning. The flexibility of the Powers temperature control system installed at LINTON meets the demands of varied types of activity and occupancy in all seven buildings.

Air Conditioning, heating and ventilating systems are regulated from Powers Control Center located in the boiler room. See photo below at right.

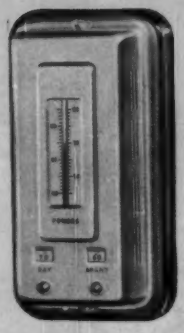
Day control for the air conditioning systems during the cooling season consists of dew point control for the chilled water coils with individual reheat mixing damper control for each zone controlled from a zone thermostat.

Night control of the air conditioning systems provides reduced room temperatures during the summer "night" cycle when the buildings are unoccupied, with a minimum of refrigeration. This feature is designed to provide precooling and reduced start-up load.

A Powers MASTROL System controls the hot water heating system plus individual room control of convectors in critical areas.

In the Year 2000, the Powers temperature control system at Linton will likely still be functional. Twenty-five to 50 years of dependable operation with a minimum of maintenance is often reported by users of Powers control.

In Your New School make sure taxpayers get the biggest return on their investment in accurate temperature control. Ask your architect or engineer to include a time-proven Powers Quality System of Control.



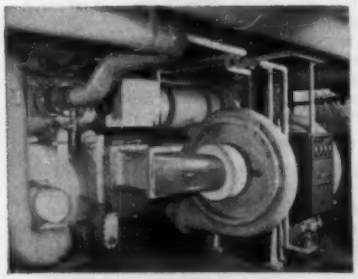
190 Powers DAY-NIGHT Thermostats here help prevent OVERheating in occupied rooms and are adjustable for lower economical temperatures during unoccupied periods.

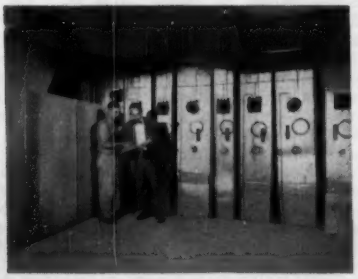
216 Powers PACKLESS Control Valves are used on convectors and unit ventilators. They're labor savers, banish packing maintenance and will prevent damage from water leakage.

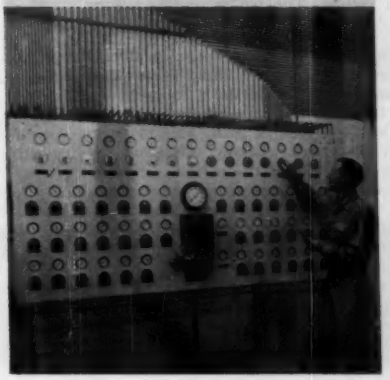
THE POWERS REGULATOR COMPANY

SKOKIE, ILL. | *Offices in chief cities in U.S.A. and Canada*

65 YEARS OF AUTOMATIC TEMPERATURE AND HUMIDITY CONTROL







Left: 235 Ton Centrifugal refrigeration compressor has ample capacity for building D and library, or auditorium alone when other two buildings are not in use.

Right: Powers Control Center in boiler room. Center photo: one of 5 air conditioning systems and 9 of 68 Powers Sub-Master Thermostats controlling conditioned air to various spaces.

Surveying the School Scene

DESEGREGATION IN LITTLE ROCK, VIRGINIA

On September 12, "decision day" in Little Rock, the integration situation underwent the following rapid-fire developments:

1. The U. S. Supreme Court denied the Little Rock school board's appeal for a 2½-year delay in integration.

2. Gov. Orval Faubus ordered all Little Rock high schools closed "to prevent violence," using a new Arkansas law. He also set Oct. 7 (later, Sept. 27) as the date for a vote by Little Rock citizens on whether they desire to keep the schools closed or to integrate them.

● In Virginia, the Warren County high school in Fort Royal became the first school to shut its doors under the Virginia law that closes integrated schools. Arlington County, Norfolk, and Charlottesville all prepared to be affected by the same edict.

EDUCATION BILL BECOMES LAW

The controversial, $900-million, four-year bill to aid science education passed the senate and house with compromises to become "The National Defense Education Act of 1958." The law has provisions for student loans, counseling institutes, fellowships, language centers, science equipment matching grants, etc. (For complete details, see page 54 for *Word from Washington's* comprehensive report.)

RECORD FALL ENROLLMENT

The 14th straight year of record school enrollment, about 45 million in school year 1958–59, was predicted by Lawrence G. Derthick, Commissioner of Education. The gain over last year would be more than 1,000,000 in grade school, 400,000 in high school, and 173,000 in college.

NEW ATHLETIC RULES

In an effort to stop school athletics from interfering with the educational program, the Portland, Ore., schools recently adopted the following rules:

1. Athletes and coaches may not leave classes nor study halls before closing time.

2. Practice periods in all sports are to end at 5:30 p.m.

3. No "Athletic study halls" are to be provided; athletes will be programmed into classes and study halls with other students.

4. All afternoon athletic contests are not to begin before 4 p.m.

5. Physical examinations, now conducted during school hours, will be conducted after them.

IN-SERVICE SCHOOL COURSES

Syracuse University will launch in September a two-year pilot project which will make half-time scholars of 20 mathematics teachers from the Syracuse, N. Y., area for one year teach mornings in their high schools and attend Syracuse University mathematics classes afternoons. In answer to presidential scientific adviser Dr. James B. Killian's plea to give "high school teachers enough time to become scholars again," the Syracuse Plan is being financed through an $85,000 grant from the Sloan Foundation.

SCHOOL ENTRY AGE UP

School systems are gradually raising the minimum age requirement to six years for entering first grade, a recent NEA survey reported. A poll of 532 districts showed that more than half set the entrance at five years and eight or nine months. Every school planning a change reported that its new age requirements would be higher than before.

SCHOOL DISTRICT REORGANIZATION

New York State has completed the first stage of its school district reorganization program. According to Dr. Francis Griffin, head of the rural administrative services in the State Education Department, the work of this first stage consisted of modernizing school district layouts, some of which had been established as far back as 1812 and had not been changed. Under the new program, the districts have been combined and centralized to make maximum use of educational facilities and teaching staffs.

The second stage on which the state department is now entering, will be to further combine some of the central districts which were established in the 1920's and 1930's. As of July, 1958, there were 1411 districts, as compared with over 12,000 one hundred years ago.

Dr. Griffin reports that the state legislature has been extremely flexible in permitting reorganization. Another important factor has been the increase in public interest in improving the quality of education.

NEW JERSEY UNIT CONTROL SYSTEM

A significant change in the public schools of Bloomfield, N. J., during the school year 1957–58 has been the change in the field of school administration. On January 1, 1958, the school system changed from a dual to a unit control system.

Dr. Jerome C. Salsbury was elected assistant superintendent in charge of curriculum and instruction, and Robert E. Morris, formerly business manager, was made assistant superintendent in charge of business affairs.

NEW PROMOTION POLICY

In Kalispell, Mont., the board of education of the Flathead County High School has adopted a rule that students not achieving a satisfactory grade in 50 per cent of their studies, at the close of any marking period shall be placed on probation for the remainder of the next marking period. At the end of the probationary period, they will be dropped from school until the next semester if they have not improved in their work.

(Continued on page 76)

Ten Rules for School Harmony

Difficulties in the conduct of the public schools of the Oak Grove School District in Oregon led early in the present year to an investigation by the Oregon State Education Department. In settling the controversy the State Department's committee made a number of specific recommendations adapted to the local situation. In addition, a set of ten general recommendations were set forth, which have almost universal application for assuring effective lay and profesional leadership in any school system. The ten recommendations are:

1. A written statement of policies should be developed jointly by the school board and the administrator in his capacity as executive officer of the board. This document should delineate the functions of each, and then be accepted by both as a working agreement.

2. Within the scope of the policy statement both parties should operate in accordance with their functions. The board, being responsible for the final adoption of policies, has the authority to amend these policies when and if it seems in its judgment it becomes necessary or desirable. However, the administrator should enjoy a feeling of security in performing his duties.

3. Board meetings should be open to the public and sufficient notice given in order that those citizens who wish to attend meetings may do so.

4. Executive sessions of the board from which the general public is excluded should be rare, and then only in those areas where personnel or some other similar sensitive area is to be discussed.

5. Full and complete minutes of the meetings should be kept in order that the people of the district may be informed of the actions of the board.

6. All business should be transacted in legally called meetings of the board.

7. It should be the first obligation of the citizens of the community to vote at elections for school board members and for the budget.

8. It should be the obligation of the community to show a continuing interest in the operation of the schools by attending board meetings and asking for and receiving reports from the school board.

9. After selection of board members through the elective process, the community in general should demonstrate confidence in the choices made.

10. Immediate steps should be taken jointly by the community and the board acting in good faith to resolve whatever differences may be prevalent at this time.

at no extra expense and at no salary loss to the teachers. Teachers of superior ability will

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With fireproof schools

Demand GENUINE LATH AND PLASTER

Write for our booklet "CHILDREN AREN'T FIREPROOF"

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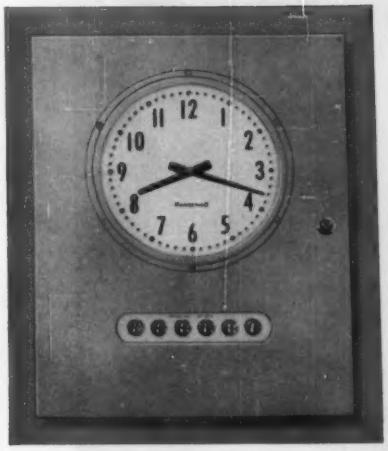
Now, from Honeywell, leader

Making schools better is this man's job!

He's the Honeywell man who works closely with your architect and builder to see that your Honeywell control systems are properly applied and installed. His responsibility never ends either, because he, and thousands of Honeywell men like him, are ready to give you instant, expert service from 112 service offices—as close as your phone.

in school control systems,



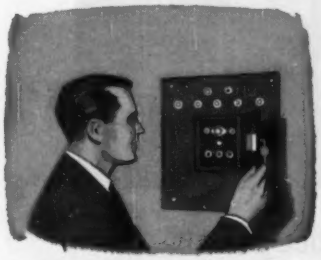
THE HONEYWELL CLOCKMASTER*

The Clockmaster, Honeywell's newest addition to its line of electrical systems for schools, represents another important step in Honeywell's overall program for schools. The program itself is based on Honeywell's thorough appreciation of schools' operational needs and is primarily designed to permit better education by providing the finest control facilities in school plants.

Now with the Honeywell systems shown on this page, your school gets the special benefits that only Honeywell can give: 1) your school management benefits from simplified operational functions; 2) your student body benefits from a better, more flexible learning environment; and 3) your taxpayers benefit from the performance and durability of quality products tailored to fit your school's particular needs. In addition Honeywell offers the most comprehensive maintenance program in the industry—periodic inspections, emergency service and the replacement of worn equipment. For more complete details on any of Honeywell's electrical systems for schools, call your local Honeywell office or write Minneapolis-Honeywell, Dept. AJ-10-133, Minneapolis 8, Minnesota.

Honeywell Clockmaster Systems

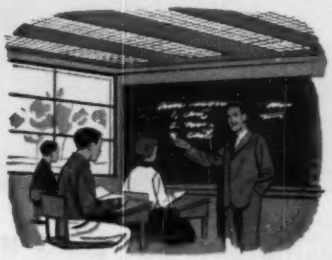
- Provide handsome clocks in 9″, 12″, 15″ or 18″ dials, flush or surface mounted.
- Easy installation—standard plug-and-socket connections. No soldering.
- Simplified link-chain programming. Easy to read, understand, set. Trouble-free.
- Optional spring-reserve power unit. Keeps master clock running during power failure.
- Signal duration easily varied. Surface switch permits signal duration 2 to 25 seconds.



Honeywell Fire Detection and Alarm System

- Locates fire by numbered light.
- Reports fires automatically both within building and to local fire station.
- Transmits alarms even with ground or break in detection circuit.
- Operates on stand-by battery in case of power failure.
- Easy to install. Detectors fit standard 3″ box or plaster ring.

*Trademark



Honeywell Light-Saver*

- Phototubes and control panel automatically turn artificial lights on and off as needed to supplement daylight.
- Tests prove savings as high as 80% on lighting bills.
- Helps teacher use natural lighting to fullest advantage.
- Honeywell helps with application and installation.
- Honeywell offers lifetime maintenance contract.

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FIRESTONE RUBBER-X HELPS ADD NEW SAFETY AND EXTRA MILES TO SCHOOL BUS TIRES!

Firestone Rubber-X, a new formula for long wearing tires, will help reduce your school bus tire expenses. Exhaustive aging and abrasion tests proved that tough Firestone Rubber-X resists the grinding wear of steady highway and country-road service. With Firestone S/F (Safety-Fortified) nylon or rayon cord, and Firestone Rubber-X you get extra miles of safe, trouble-free transportation.

All Firestone school bus tires come with Firestone Rubber-X *at no extra cost!* And there's a Firestone tire for every school need—and every school budget. Let your Firestone Dealer or Store analyze your bus tire needs and give you top tire value for school tax dollars. Be sure to specify Firestone on all new buses.

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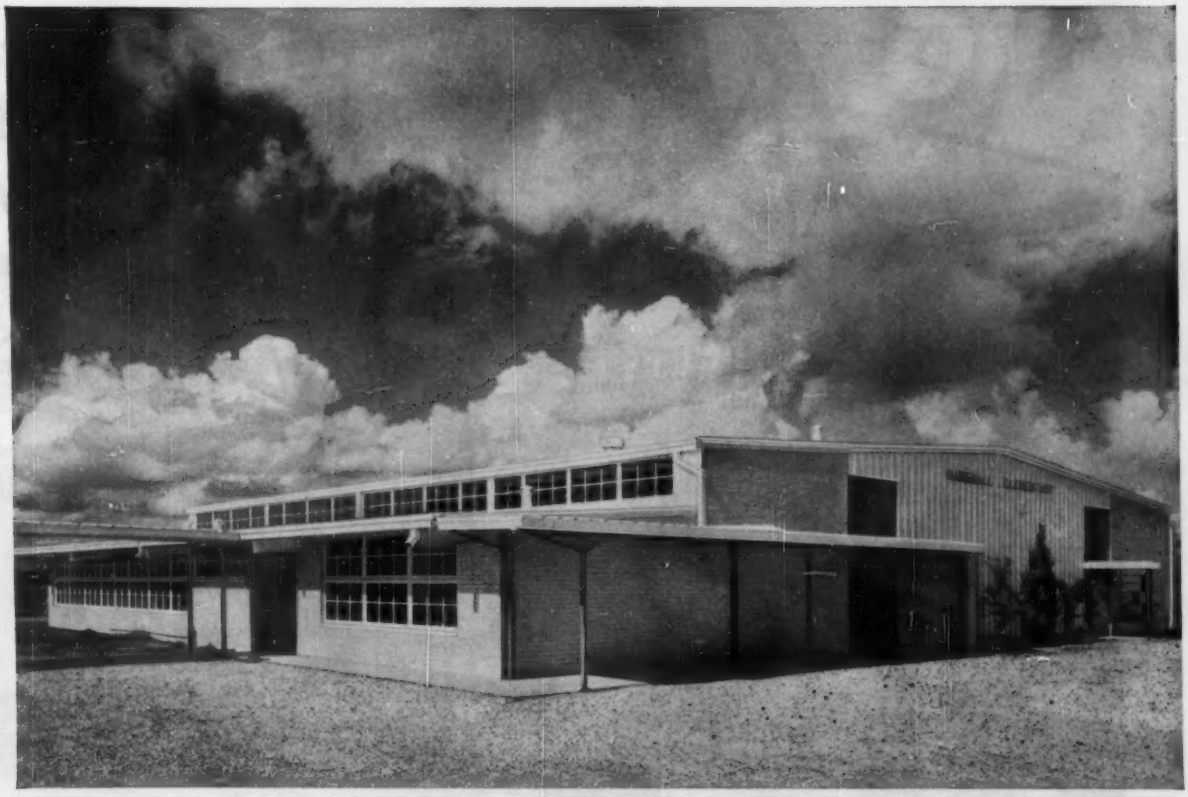


A school like this gets straight A's

Butler schools rate high with teachers, school board members and taxpayers. Here's why:

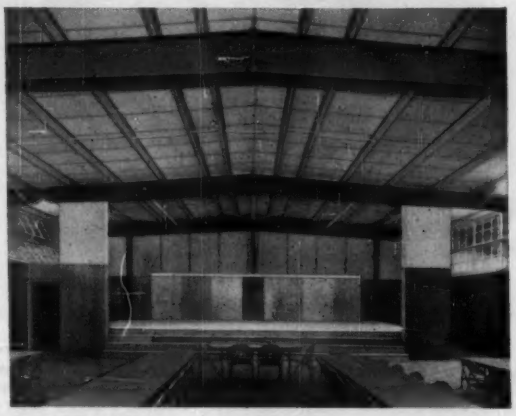
Teachers like the spacious, open rooms that result from Butler's column-free, truss-free building design. They like the excellent ventilation and illumination characteristics that create a cheery, pleasant atmosphere for teachers and pupils alike.

Board members like Butler schools because they know that the all-steel structural frame and roof system create a strong, permanent building that requires a minimum of maintenance.

And *taxpayers* appreciate the savings that result from building with pre-engineered, economically mass-produced Butler building components.

Before your community invests a single dollar in school construction, get the full story on the Butler Building System from your local Butler Builder. He's listed in the Yellow Pages of your phone book under "Buildings" or "Steel Buildings."

Or write directly to us for your free copy of the booklet—"A New Solution to the Problem of School Construction . . ."



A low-profile Butler building with a lean-to on both sides was used to create the Marshall Elementary School pictured on this page. The simple, yet attractive exterior was accomplished economically by combining low-cost Butler panels with curtain walls of brick. The functional cafetorium (above) at the Marshall Elementary School is a good example of the spacious, column-free interiors that Butler's clear span design makes possible.

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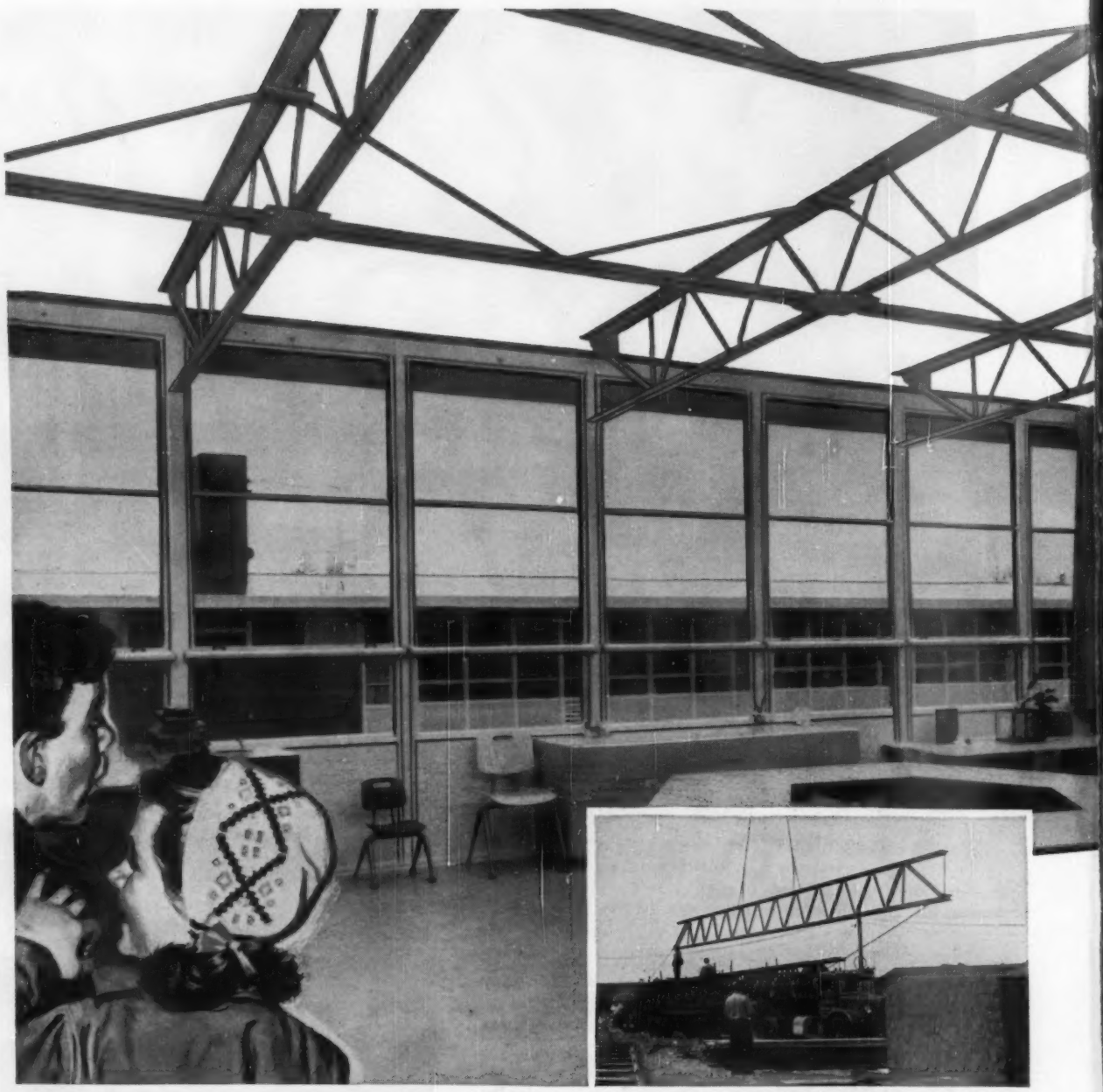

Vision-Vent® Window Walls of the type shown here are the key to Truscon's low-cost school design. Vision-Vent goes up like other curtain-wall systems—fast and easily. And, it offers this important plus—it's a complete wall with window already in place, completely contained within the depth of the window-framing members. Insulated panel can be in color. Choice of double-hung or projected steel windows. The Truscon design system is based upon a 9-foot module consisting of twin Vision-Vent units with mullion.

In the Truscon design concept, roof of the single-story building is supported by Truscon Clerespan® Steel Joists integrated into the 9-foot module. Clerespan steel joists reduce construction time because they are light, long, easy to handle. They are designed to meet all types of loading conditions. Open web allows passage for ducts, pipes, electrical conduit, as needed. Joists can be left exposed and painted, or an acoustical ceiling can be suspended.

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Get needed classrooms now. Using this Truscon system as a guide, your architect can help you more readily solve the pressing problem of classroom shortages. You can plan classrooms around local needs, both current and future. You can provide for expansion.

Speed and economy. This application of multiple Truscon products takes advantage of the speed and economy of off-site construction. Standard steel building products are most economical, and are readily available when you need them.

Class A, fire-safe construction. Simplified construction methods and modular design provide a permanent, high quality school building that will be an asset to your community. This is Class A construction. Materials are fire-safe. And, because all these Truscon products are *steel,* they are strong, long-lasting, safe. Original building dollars go farther, serving your community for years.

Expand as needed. This type of construction has been planned with insulated end walls which can be removed. This means that additional space can be added, and the end wall re-used. Additions can be made rapidly, easily, and in perfect architectural harmony. Your best protection against early obsolescence is provision for easy expansion.

Get the facts now. Truscon will work with architects, contractors and builders to develop the most efficient use of Truscon Standard Steel Building Products for public and private schools. Start planning today by sending coupon below.

Truscon Ferrobord® Steeldeck is welded to the top of Clerespan joists to produce a fire-resistant roof. Ferrobord is light, easy to handle, easy to place. Long lengths span three or more purlins. It roofs large areas quickly. Top surface is ideal for the application of insulation, and built-up waterproofing.

Truscon Steel Doors and Frames are easy to hang, easy to finish. They can't warp or stick, are fire-resistant. They offer low initial cost, low maintenance cost, safety and durability.

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N.S.B.A. REPORT

W. A. SHANNON Executive Director N.S.B.A.

Dr. Conant to Issue Final Report on Study of American High School at 1959 Convention

Probably the most outstanding event of the 1958 annual convention of the National School Boards Association held in Miami Beach last April was the preliminary report made by Dr. James B. Conant of a two-year study of the American high school which he was conducting under special grant from the Carnegie Foundation. The 1958 Convention address made by the former President of Harvard University received enthusiastic response from the 3000 school board leaders and members in attendance. The address was widely reprinted, with at least 100,000 copies of the preliminary report being circulated among lay and professional educational leaders in all parts of the nation.

The final results of Dr. Conant's two-year investigation are eagerly awaited; and by the time of the 1959 NSBA Convention — which will take place in San Francisco, Calif., from January 25–28 — the study will have been completed. That the 1959 Convention will be one of the most important educational gatherings of the coming year is virtually assured by Dr. Conant's recent acceptance of an invitation from NSBA leaders to present the "Final Report of a Study of the American High School" to the fifth general session of the 1959 convention.

The NSBA is gratified and proud that Dr. Conant has selected the occasion of a national meeting of lay citizens with legal responsibilities for public education to present the first official report of the conclusions and findings of his study, which is expected to have a strong influence upon the future course of secondary education in America. The NSBA is also extremely pleased that Dr. Conant has chosen to make the first distribution of printed copies of his official report to participants of the 1959 Convention.

Vital Theme for 1959 Convention

Dr. Conant's address should prove particularly appropriate to the theme selected by NSBA President Carl B. Munck for the 1959 Convention: *Improving Education — A Free People's Responsibility*. Although the need to improve public education at every school level is being recognized by the American People to a degree probably unprecedented in the nation's history, it would appear true that special citizen interest is being focused upon the years of secondary education. Selection by Dr. Conant of a national meeting of school board members as the occasion for issuing his final study report is further evidence of his own strong commitment to the basic belief stated by the theme — the belief that in this country the major responsibility for educational improvement rests upon the free American people themselves, and upon their designated citizen representatives, the school board members of the nation.

In developing the program for the 1959 Convention, NSBA planners have sought to provide unusually valuable opportunities for convention participants to examine and discuss some of the broadest and most fundamental social, cultural, political, and economic implications of the convention theme. In addition to Dr. Conant, many of the most prominent leaders in American politics, business and industry, farming, labor, law, education, and other major segments of American society have been invited to address the 1959 Convention with special reference to school improvement from the standpoint of their particular areas of interest and activity. General session addresses will be followed by large group meetings and discussion sessions in which convention participants will give active consideration to the issues, problems, and arguments presented by the speakers.

A Major In-Service Experience

There can be no doubt that attending and participating in an annual convention of the National School Boards Association is one of the most valuable in-service experiences in which a school board member can engage. The opportunity to exchange ideas with board members from districts facing similar problems, the opportunity to discuss problems and issues with outstanding lay and professional educational leaders, the inspiration for self-improvement and for renewed dedication to the important work in which they are engaged, and the inevitable increase in their funds of reliable educational information resulting from the convention experience: these are only a few of the positive values which school board members have credited to their convention participation.

Increasing Problems Demand Better Boards

Few observers of the American educational scene doubt that school board membership in this nation has entered a new and highly significant phase in its history of public school service. The challenge of Russian technological advancement, the growing realization by the American public at large of the importance of public education to the very life and future of the nation, the increasingly effective efforts of the 51 state, territorial, and national school boards associations to improve school board membership and operation, heightened understanding of the close association between citizen control of public education and the preservation of our democratic ideals and institutions, and many other factors, have given school board members in America a profound reorientation toward the responsibilities which board membership was created to serve. In effect, the school board members of America have restaked their claim to jurisdiction over the policies of the public school program itself. They are more and more concerning themselves with philosophical, curricular, and evaluative questions in public education, questions which only a few years ago would have received but a relatively small share of their attention, concern, and time.

But, the willingness of school board members to fulfill fundamental educational responsibilities does not insure that they will fulfill them in the objective and informed manner which intelligent and effective decision requires. The problems of public education are never simple, and their solution demands clear reasoning and reliable facts. It was probably for these reasons that survey findings of the NSBA's "1956 Research and Development Project" showed that *one of the ten most important responsibilities of school board members is engaging in self-improvement programs and activities for the purpose of rendering better school board service*

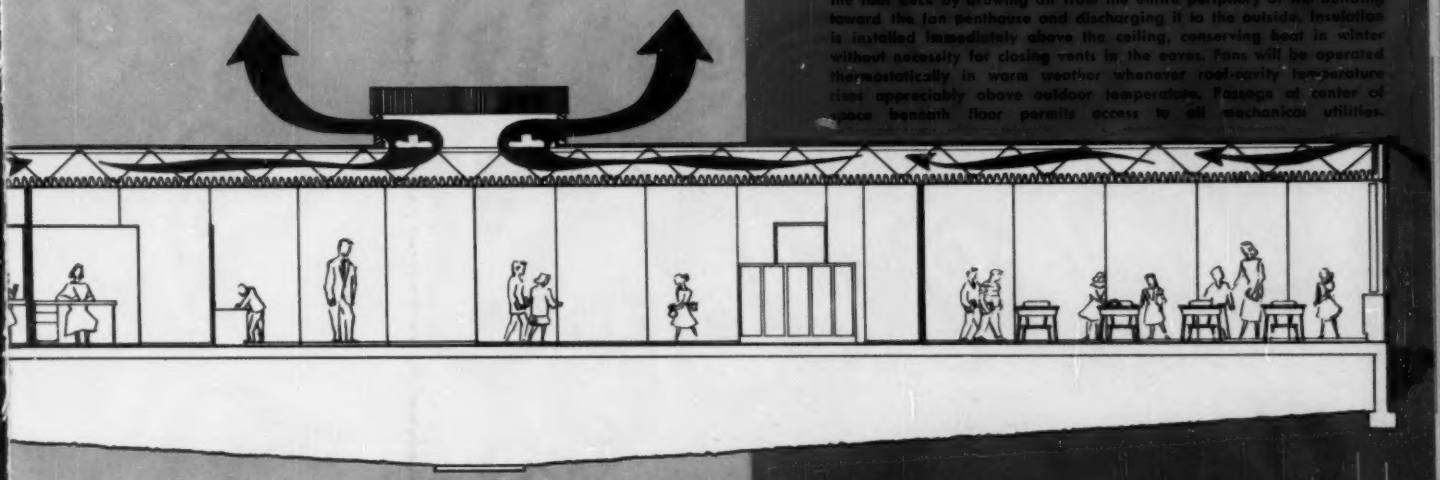
A Representative From Each Board

It is clearly in the best interest of any community to see to it that *at least one member* of its school board attends each annual NSBA convention. A school district which believes that better boards will make better schools will do whatever it can to provide the means for its board members to engage in the kind of in-service training activities which can be expected to result in greater service through greater knowledge and understanding. Countless school districts of America have long followed the official policy of paying the expenses of their board members in attending school board conventions, in the well-founded belief that such attendance constitutes a valuable source of experience and information which will benefit their public schools. A number of states have taken steps to make the reimbursement of convention expenses a matter of official state policy. The most recent example is that of Pennsylvania, whose 1957 legislature enacted a law which provides that a school board may send two delegates to the national convention without restriction as to distance, and may reimburse them for their expenses in an amount not to exceed 12 dollars per day, together with mileage at a rate of seven cents per mile traveled in both directions.

In a recent issue of the *Bulletin of the Wyoming School Trustees Association*, President K. H. Roberts of the Wyoming Association wrote: "Some board members in Wyoming have the idea that district financing of a trustee's expenses to a trustee's convention is not right. I believe we must insist that trustees attend these meetings to give themselves a chance to see and learn what others are doing. Until this is done, we are only holding back our own progress in improving education. . . ." ■

To Reserve Hotel Space . . .

The NSBA has contracted with 42 fine San Francisco hotels for accommodations for school board members and guests attending the 1959 Convention from January 25–28, 1959. Hotel reservation application forms have been sent to the executive secretaries of the state and territorial school boards associations, to whom requests for such forms should be directed. Completed applications should be forwarded to the NSBA Housing Bureau, Room 300, 61 Grove Street, San Francisco 2, Calif.



Open-truss roof construction makes it possible to cool the underside of the roof deck by drawing air from the entire periphery of the building toward the fan penthouse and discharging it to the outside. Insulation is installed immediately above the ceiling, conserving heat in winter without necessity for closing vents in the eaves. Fans will be operated thermostatically in warm weather whenever roof-cavity temperature rises appreciably above outdoor temperature. Passage at center of space beneath floor permits access to all mechanical utilities.

Michigan architects prove air conditioning compatible with campus-plan school

This unique school is another outstanding example of architectural design innovations for air conditioned schools. Provision for future air conditioning was an important part of the planning in the design of this campus-plan high school near Lansing by Laitala & Nuechterlein Associates.

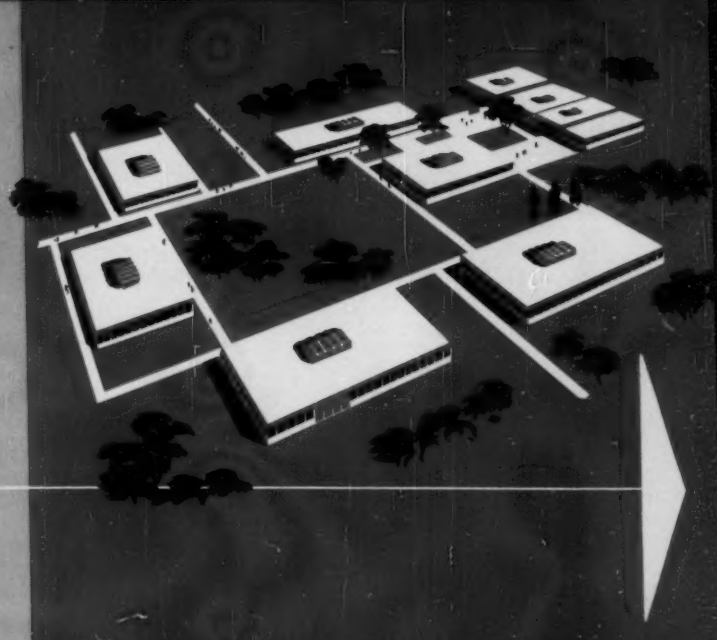
Penthouse fans draw air from the entire periphery of the building through the open-truss roof. This forms a cooling "shield" against roof solar heat gain by eliminating thermal lag in roof insulation, results in smaller chillers, lower operating costs.

Typical teaching unit places ten classrooms around central project area, along with necessary toilets, administration and conference spaces. Demountable partitions can be rearranged to meet changing educational requirements. Equipment room is located on outside wall for possible addition of free-standing cooling tower when summer air conditioning is added.

air conditioned school design

A central steam plant supplies all of the building units—classroom buildings, gymnasium, cafeteria, auditorium—with steam. The steam is converted to hot water by converters in each of the individual buildings. Air conditioning can be added in any of the buildings at any time simply by installing chillers in the individual equipment rooms.

Flexibility is another important design feature of this school. The various buildings are subdivided with demountable partitions and can be modified to keep pace with changing conditions. Piping system is designed so that the air conditioning unit ventilators are equally flexible.



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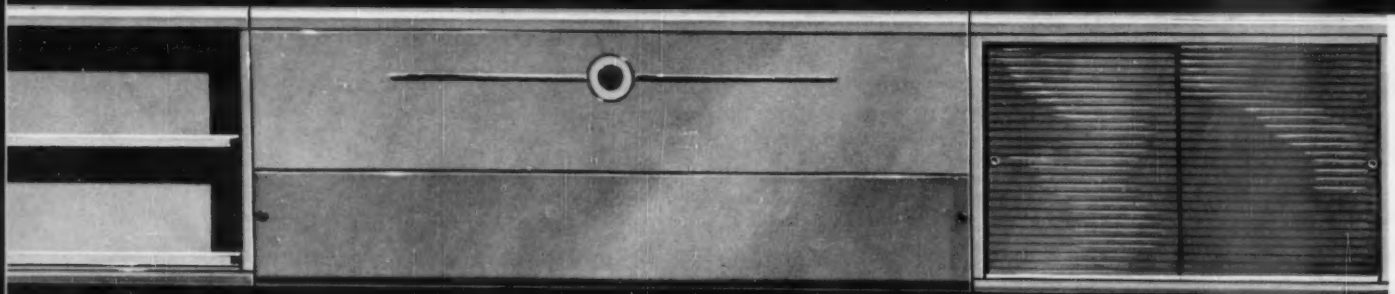

already selected by more than ~~100~~ 150 schools

Will the school you are planning ever need air conditioning? The answer is definitely—yes. Architects and educators agree on the importance of the proper learning environment. And only air conditioning can assure that your school will have it when the weather outside is warm.

That's why today—less than a year after its introduction—the HerNel-Cool II unit ventilator with optional air conditioning has been selected for use in more than 150 schools, which are either air conditioned now or have planned for it.

HerNel-Cool II is the first unit ventilator to offer optional air conditioning, as well as heating, ventilating and natural cooling (with outside air). Units can be installed so the school enjoys the usual benefits of Herman Nelson unit ventilation, including the famous DRAFT|STOP system—*the only type of draft control that is compatible with air conditioning.* Then at any time—immediately, or whenever the school budget will allow it—the mere addition of a chiller in the boiler room is all that is needed for complete hot weather air conditioning.

This can be accomplished without disruption of classroom activities . . . without expensive alteration and installation charges. The cost is far less than for separate heating and air conditioning systems—both for installation and operation.

Want information? Write today to Herman Nelson Unit Ventilator Products, **American Air Filter Company, Inc., 215 Central Ave., Louisville 8, Ky.**

AAF

herman nelson

UNIT VENTILATOR PRODUCTS

System of Classroom Cooling, Heating and Ventilating

ASSOCIATION NEWS

ASBO Convenes in New York

A jam-packed and unusually appealing program of major addresses and discussion sessions in many areas of school business management, backed up by a record number of exhibits and the usual top-flight entertainment, awaits members and guests of the Association of School Business Officials at its 44th annual convention. The meeting, according to Dr. Charles W. Foster, ASBO executive secretary, is scheduled for New York's Hotel Statler, October 5–9.

Continuing last year's trend toward providing the greatest possible opportunity for ASBO members to receive individualized answers to their questions, the 1958 ASBO convention stresses discussion groups, panel sessions, and the "Clinic," where a series of conference tables will be staffed by experts in the various fields of school business management to solve particular problems. Included in the program are two discussion groups in accounting and finance, maintenance and operation, purchasing, business administration, and personnel management; single groups will consider school planning and construction, insurance management, transportation management, cafeteria management, and student activity expenditures.

J. H. Husband

E. Roosevelt

Headline attractions include speakers Mrs. Eleanor Roosevelt and Dr. William Alexander of the First Christian Church in Oklahoma City, as well as Dr. H. H. Linn, speaking on "Are We Fit or Fitted to Be School Business Administrators?" and Dr. Ridgley Bogg, assistant superintendent from Great Neck, N. Y., who will provide a novel demonstration with his German Shepherd of how to protect school property.

The largest exhibit in ASBO convention history, many prize-winning band and choral groups, and the usual, fine exhibitors' entertainment will spice the work portion of the program.

AFT CONVENES

A salary schedule for classroom teachers of $6,000 to $12,000 a year, the maximum attainable in eight years; better tenure laws so that no teacher may be discharged except for "adequate cause"; collective bargaining rights — these three objectives were outlined at the annual convention of the American Federation of Teachers, AFL–CIO, held in Milwaukee, Wis.

Carl J. Megel, re-elected president for another term, lashed out at the "no discipline, no fail" policy in the country's schools. The resolutions adopted by the federation included those opposing a 12-month school year, efforts to halt integration, teacher salaries based on "merit," and classrooms with more than 25 students.

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Fill your exact wardrobe requirements with R-W 785 In-a-Wall wardrobes... the modern, flexible unit system that makes it possible to achieve custom wardrobe installations at production prices. R-W 785 In-a-Wall Wardrobes combine flexible adaptability with the latest in modern styling, dependable operation and efficient performance. Each five foot unit will accommodate 20 pupils... wardrobes may be equipped with cork bulletin boards, chalk boards and chalk troughs if desired. Dollar for dollar... feature for feature... you can't beat the value of R-W In-a-Wall Classroom Wardrobes. Installation supervised and guaranteed.

WRITE TODAY for complete information... request Bulletin No. F-180.

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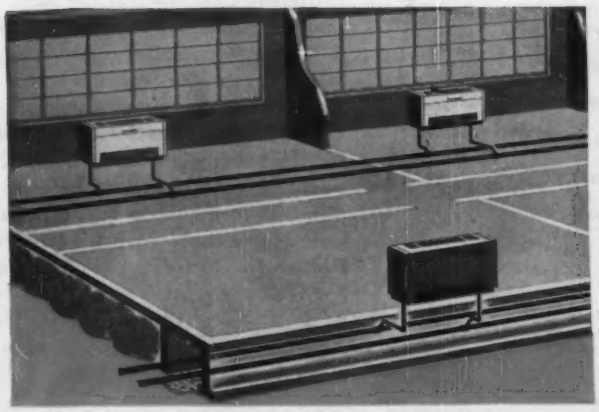
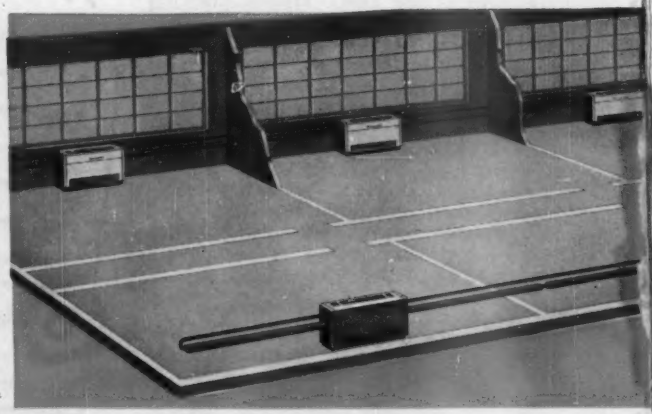
▲ Teacher and pupils are comfortable in any weather . . . in every part of the room with this Nesbitt heating, ventilating and natural cooling system. It combines the use of a Nesbitt Syncretizer unit ventilator in each classroom with Nesbitt Wind-o-line radiation installed all along the window sill (see above). Radiant heat protects teacher and pupils against excessive loss of body heat; while convected heat along the sill warms chilling downdrafts. Three-way classroom payoff: outstanding comfort, operating economy, good appearance. Layout diagrams below help to show how the Nesbitt Series Hot Water Wind-o-line System provides protected learning environment.



▲ Conventional layout (showing how perimeter trenches are used to carry the supply and return piping under the floor), is used for both steam and hot water systems. As you can see, it calls for costly trenches or crawl space, mains, runouts and pipe insulation. All take a big bite out of your heating and ventilating dollar, and all can be dispensed with when you use . . .



▲ the Nesbitt Series Hot Water Wind-o-line System. The Nesbitt Syncretizer unit ventilator, installed in each classroom on this system, requires only about ½ as much hot water as do conventional systems. As a result, smaller pumps and pipes are used. The only supply and return piping you need in a classroom wing (see above) is the Nesbitt Wind-o-line Radiation itself.

Here are the figures that prove you can have a

Quality Heating and Ventilating System

. . . within a sound, realistic budget!

Nesbitt Systems are making possible savings of as much as 20% over conventional systems in typical schools all across the country.

Some of the Recent Low Costs for Quality Heating and Ventilating Systems:

IN NEW JERSEY $1.67 sq. ft.
Pennsauken High School, Pennsauken, N. J.
Architect: Faint & D'Anastasio
Engineer: John Knecht
Capacity: 1800 pupils
Gross Area: 188,000 sq. ft.
Total Contract: $2,844,659
Heating and Ventilating: $314,986

IN OHIO $1.91 sq. ft.
Young Elementary School, Springfield Township, Ohio
Architect: W. B. Huff & Assoc.
Engineer: Paul Fleming
Capacity: 300 pupils
Gross Area: 22,000 sq. ft.
Total Contract: $335,071
Heating and Ventilating: $42,025

IN ILLINOIS $1.41 sq. ft.
Creve Coeur Elementary School, Creve Coeur, Illinois
Architect & Engineer: George Poppo Wearda
Capacity: 256 pupils
Gross Area: 11,800 sq. ft.
Total Contract: $156,124
Heating and Ventilating: $16,664

Compared with the installed costs of some other systems, the Nesbitt Series Hot Water Wind-o-line System saves you as much as 20% on construction, equipment and installation costs. Each classroom has its own Nesbitt *Syncretizer* unit ventilator for heating, ventilating and natural air cooling. And Nesbitt Wind-o-line radiation extends along the sill to protect pupils seated near windows from cold walls and window downdraft.

No other unit ventilator provides *controlled* heating, ventilating and natural cooling as effectively as the Nesbitt *Syncretizer*. When used in combination with Nesbitt Wind-o-line radiation, the result is healthful, productive comfort—free of physical distraction—for every pupil in the room whether he sits near the window or at the other side of the room. *Only the comfortable student can maintain maximum learning efficiency.*

Send for the big book on the value of controlled ventilation, **More Learning per School Dollar.**

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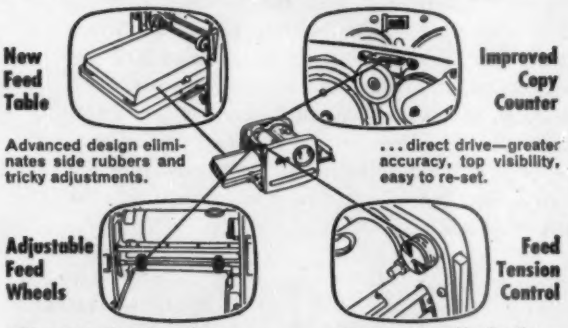

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THE AMERICAN
School Board Journal
A Periodical of School Administration

OCTOBER - - - - - - - - - 1958

DRIVER EDUCATION

The Case for LIFE

VIRGIL M. ROGERS
and WALTER A. CUTTER

In the 25 years from 1932 to 1956, almost 2,500,000 people in this country lost their lives as a result of accidents, and about 250,000,000 people suffered disabling injuries. The total cost of accidents for this period is roughly estimated at $150,000,000,000.

In the school age bracket, accidents caused more deaths than any single disease which affects this age group. Detailed statistics along these lines are matters of ample record. They define a desperate national problem.

It is in the face of this tragic record that recent attacks on some aspects of safety education, notably driver education, must be viewed. Constructive criticisms of our educational system are always in order. There is undoubted truth in the charge that over the years, some courses have been admitted to the curriculum which may not demand rigorous scholastic effort. We should be careful, however, in the somewhat frenzied activities, opinions, and prophecies which have been set in motion by the Soviet Curriculum Committee, not to throw the baby out with the bath water.

Safety Education

What *is* safety education? What *is* driver education? How did they ever get into the curriculum of more than 10,000 high schools, with more schools including this instruction every year? What does driver education include? What are its values? Does it merit a place in the educational system?

Basically, safety education is the "science of staying alive." It is associated with no particular "school" of education, classical, functional, vocational, or progressive. It is devoted solely to the development of the knowledge, the attitudes of mind, the necessary skills which will keep people alive; which will prevent painful and frequently lifelong injuries, with their personal and social dislocations; which will decrease costly material waste.

With nearly 100,000 persons killed and injured each year, and a monetary loss estimated at 10.7 billions of dollars, have we a problem sufficient for our educational system to tackle?

It is quite possible that we may underrate the total job of safety education. In the world of everyday experi-

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ence, we face increasing hazards on every side. Many of these hazards are built-in. Since they cannot be eliminated, they must be controlled. Therefore we have the total job of conditioning *our whole population* to this hazardous environment. That is the work of all the disciplines included in safety education.

Is not the *total* job of our educational system to teach students both how to learn *and* how to live? Can we defend any system of education, in this modern world, which strives for the development of the mind and ignores the welfare of the body in which the mind functions? We defend, in fact we now take for granted, the place of health education and physical development in our schools, and properly so. Are not accidents a social disease? To the age of 25 years, they are the leading cause of death, while, between 25 and 45 years, they are second only to heart disease as a cause of death.

Have the schools a responsibility to this human erosion?

Driver Education

Because driver education is the most easily recognized area of safety education and because its purposes are often misunderstood, we have chosen it for special discussion.

The simple answer, usually given by the uncritical, is that driver education is designed to teach people how to drive. This is true but inadequate. A commercial driving school teaches people how to drive, although in many cases this instruction is inadequate to the development of even the basic skills.

It is the purpose of driver education to place trained and responsible drivers in our motor vehicles so that they will be able to act the part of mature citizens in the midst of one of the most striking social phenomena in history, a nation literally on wheels. What may have begun in some schools years ago as an interesting sideline has now become training for survival.

In 1951, after 50 years of motor vehicle operation, the country reached 1,000,000 traffic fatalities. At our present rate it is estimated that we shall destroy the next million in 27 years. More vehicles, more drivers, more deaths, more injuries, more property damage.

Is it the catastrophic nature of deaths from atomic weapons which fascinates us, and attracts our national interest and concern, whereas the steady depletion of our human and material resources leaves us unmoved and unconcerned?

What we can or cannot do about controlling atomic weapons remains to be seen. It would compound that possible tragedy, if, while awaiting some uncertain future Armageddon, we did not use our intelligence and national determination to save the lives that we can save now. Traffic accidents, like other accidents, are no respecters of persons. Scientists, skilled workers, teachers, laborers, promising youths, helpless children are all numbered among the victims.

Certainly any well-founded discipline, utilizing an established and substantial body of teaching material which results in the safe enjoyment of our vehicles, plus the conservation of incalculably valuable human resources, merits a worthy place within the whole discipline of learning.

It is commonly assumed by some public commentators on curricula, what the schools ought to be doing, and how to "get back to fundamentals," that driver education has been propelled into our schools by a group of educational faddists. Once there, it is a highly dubious activity and should be eradicated forthwith. One such viewpoint, chosen for its profound irrelevance, is that of Inez Robb who writes a syndicated newspaper column. In a column in the *New York World-Telegram and Sun* of January 16, 1958, she wrote: "In my flat-footed way I intimated that 'the first 12 grades of school are for something besides finger-painting, self-expression, folk dancing, life guidance, basket weaving, and other such sandbox activities as auto driving, lampshade making and cheer-leading.'" Further: "As an extracurricular activity, for which no credit is offered, this program is splendid. But it is boondoggling when it is offered as a credit course."

Is it boondoggling to save in the future some part of the 52,300 persons killed between 18 and 25 years during the years 1951–56? This age bracket was chosen because many of these victims were just out of high school, and it appears that the schools among other community agencies and institutions had failed in many of these cases. Is it boondoggling to place our educational system in the forefront of the battle against this needless and irreparable loss?

Is it boondoggling that the only social institution, which has shown either the capacity or the inclination to do something about a problem of this magnitude, is striving to do it? Where are the other institutions and agencies capable and willing to tackle it? And isn't it true that right or wrong in its total offerings, the school is the agency most responsive to socially established needs and most adequate to meet them?

Mr. Adlai Stevenson in a thoughtful article about education in *The New York Times Magazine*, April 6, 1958, entitled "The Dual Problem of Education," stated that he had taught his sons to drive and suggested that this function might be returned to the home. But, how many parents have the time, the patience, the skill, and *the requisite qualities of good drivers themselves* to do a satisfactory job? Remember, please, that we are not talking about simply starting, stopping, turning, or backing vehicles. We are discussing responsible driving. The school is the fountainhead for inculcating the principles and practices of personal and social responsibility. Here are our citizens of the future in their most impressionable years. Shall we deny them the right to life by failing to give responsible instruction in traffic safety, as well as general safety?

What Does Driver Education Include?

Driver education strives to blend knowledge, skill, and constructive attitudes in such fashion that the student becomes a responsible driver and pedestrian.

One wonders how many educational philosophers, analysts, and others who would dispose of driver education so summarily have ever seen a course outline or attended a well-conducted class.

Here is the outline of major units in one of a number of textbooks available to driver education; it is on material of this quality and scope that courses in driver education are based.

Unit One: The Traffic Problem — A Challenge to Young Drivers.

- Problem 1: What is the traffic problem — and how are you concerned?
- Problem 2: How is the nation concerned?
- Problem 3: How did the problem develop?

Unit Two: Learning Fundamental Driving Skills.

- Problem 1: How can the instruments, switches, and controls help you?
- Problem 2: How is good form in driving developed?

Unit Three: The Driver.

- Problem 1: How does physical condition affect driving performance?
- Problem 2: How do personality traits affect driving performance?

Unit Four: Understanding Your Car — Its Construction, Operation, and Maintenance.

- Problem 1: What makes a car go?
- Problem 2: How can you get your money's worth from your car?

Unit Five: Traffic Laws — Natural and Man-Made.

- Problem 1: How do the laws of motion and energy affect the car and the driver?
- Problem 2: What are the basic man-made traffic laws?

Driver Education: "Training for Survival" —

"It is the purpose of driver education to place trained and responsible drivers in our motor vehicles so that they will be able to act the part of mature citizens in the midst of one of the most striking phenomenon . . . a nation literally on wheels . . ."

Problem 3: How does engineering affect traffic and its laws?
Problem 4: What are the laws concerning licensing and liability?
Problem 5: How are traffic laws enforced?

Unit Six: The Act of Driving.
Problem 1: What are the problems involved in city driving?
Problem 2: What are the problems involved in highway driving?
Problem 3: What special problems are encountered on superhighways?
Problem 4: What abilities are needed to meet driving emergencies successfully?
Problem 5: What are the fundamentals of the act of good driving?

Unit Seven: Co-operation Among Highway Users.
Problem 1: How can drivers and pedestrians co-operate more effectively?
Problem 2: What is the role of the cyclist in traffic?

Unit Eight: Meeting the Challenge — It Can Be Done.

These texts contain valid, essential content. The whole driving act and the preparation necessary for it; the care and maintenance of vehicles; the knowledge of natural laws and regulatory statutes; the intimate relation of physical and mental states to safe driving; the supreme importance of disciplined attitudes; the ways in which the student can co-operate to achieve greater safety for all — these are among the subjects discussed.

There are numberless opportunities for material from almost every subject to be introduced in driver education, e.g., physics — friction, power, and electricity; chemistry — combustion; economics and mathematics — the economics of the automobile and the automobile industry; social studies — the effect of the automobile on population growth and development.

In the social sciences, there may be included the effect of the motor vehicle on, and its relation to, behavior patterns, population mobility, family life, industrial development, and, in the field of economics, the effect on transportation patterns, the social costs of accidents, the economic significance in the manufacture, operation and servicing of motor vehicles. The economic aspect alone is of unusual importance, when it is realized that one out of every seven employed persons in the United States is associated in some fashion with the whole motor vehicle industry; manufacture, servicing, supply, and the thousands employed in state and municipal regulation and control.

The motor vehicle is big business, economically and socially.

Driver education is but one part of a larger program of safety education which has become a part of our educational program. There is the safety of the school itself, its varied activities, and its outside program and surroundings. Then there is instruction in home and fire safety, and in rural areas farm safety is added. These subjects, most of which are integrated with other subjects, are meaningful and effective, and have resulted in the school population showing a steady decline in accident experience over the years, even though accidents still lead diseases for this group.

This total program moves toward the goal of teaching children and faculty how to be safe whatever they are doing. The goal? *Safe* individuals.

Professional and Public Support

As long ago as 1926, the *Twenty-Fifth Yearbook of the National Society For the Study of Education* was devoted to "The Present Status of Safety Education."

In 1940, a monumental landmark in the history of safety education, the 18th Yearbook of the American Association of School Administrators of the National Education Association was devoted entirely to safety education. Since then, innumerable texts, monographs, research studies and abstracts have been published, with more than 75 doctoral studies which deal with some aspect of safety education having been completed.

Among the more than 80 national organizations which have been and are actually interested in the field of safety education and have endorsed driver education are:

The American Association of School Administrators
The National Commission on Safety Education, N.E.A.
The American Automobile Association
The President's Conferences on Highway Safety
The National Safety Council
Many other state and regional educational groups.

It is of interest to note that the chief state school officer of each of the 48 states has endorsed driver education.

The Association of Casualty and Surety Companies, as an example of an important industrial group has, in addition to millions of dollars contributed to the cause of greater safety in the nation, taken a leading part for decades in supporting driver education in the schools.

A forthcoming publication of the National Commission On Safety Education will reveal a striking growth in the number of colleges and universities giving courses, and course programs, in the field of safety and driver education.

Are *they* boondoggling?

A Restatement of Values

The vehicle has become the focal point of individual and familial interest, of social study and national concern. In the operation of the vehicle, the individual is extending himself, his speed, his movement, and his satisfaction of various desires and purposes. There is a distinctiveness about the relationship between the person and the vehicle which not only merits more study than has been given it, but which also distinguishes the importance which

(Concluded on page 66)

A checklist to help boards and teachers isolate and resolve areas of difference in forming the salary schedule —

Principles for Salary Schedules

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In recent years the expanding economy of the nation, coupled with the critical shortage of teachers, has made the revision of the salary schedule almost an annual necessity. In the larger school systems of the country a common procedure is to have the classroom teachers' association review the schedule, make proposals to the board of education, and then deliberate with the board in an effort to have the proposed schedule approved. In the smaller communities the classroom teachers are not as well organized and as a consequence take less initiative in proposing salary schedule revisions. These proposals are frequently initiated by the superintendent of schools, who feels impelled to ask for an upward revision of the schedule in order to employ new teachers and to retain those already in the system. He tries to convince the board of education of the necessity for increasing the salary budget.

In the larger school systems it is not uncommon to find the classroom teachers working for the adoption of a schedule which the board of education and the superintendent, rightly or wrongly, term quite unrealistic. Year after year the deliberations concerning the salary schedule are fraught with an increasing amount of ill-feelings. Frequently they threaten to disrupt the harmonious working relationship between the teaching corps on the one hand and the administrative personnel on the other. More and more, it seems, the board of education and its chief executive find themselves in a position where they feel they must oppose many features of the salary schedule proposed by the teachers.

Misunderstood Roles

The difficulties that have arisen appear to grow out of several misunderstandings relative to the role of the various groups concerned with the educational program. In the first place, teachers often seem to forget that the responsibility for determining the amount of money to be raised by public taxes for school purposes and the distribution of that money is the responsibility of the board of education working with the recommendation of its chief executive. The teachers would do well to bear in mind that the board of education cannot and must not attempt to avoid that responsibility.

On the other hand, the board must recognize that there has been a great change during the past 25 years in the relationship between the employer and the employee. No board should attempt to adopt policies affecting teaching personnel without taking into careful consideration the opinions and viewpoints of the teachers and administrators. After ample opportunity has been provided for taking into account the various viewpoints, however, the responsibility for establishing policy and for providing for its execution rests with the board of education.

The fact that more and more teachers' associations and boards of education are failing to arrive at satisfactory understandings relative to their salary schedules is predicted, perhaps, on the fact that most salary schedule negotiations fail to begin with basic principles. All too frequently the annual study of the salary schedule is merely a rejuggling and a rearrangement of the figures on the schedule for the previous year. The teachers' committee or the committee of the board usually looks at last year's schedule, discusses the trend in the supply and demand of teachers, the rise in the cost of living, and the trend in salaries in neighboring or comparable communities. They proceed directly to ruling off a number of columns on a piece of paper and setting down figures which eventually result in the new proposal for a schedule.

A Checklist For Discussing Salaries

"This we believe relative to teachers' salaries" might head a list of statements which would base the annual discussion of schedules. A sample list of statements for agreement and disagreement is presented at the right; this represents only a sampling and each district would delete some and add others. But the listing would aid in isolating the factors which need added discussion.

When the teachers and the board begin to discuss the proposed schedule, board differences of viewpoint frequently exist; and occasionally harmonious negotiations between the teachers and the administration break down quite completely.

This breakdown is quite natural in view of the approach which is being followed. The entire procedure does not lend itself to isolating and identifying the areas of difference. It would be much more fruitful when a salary schedule revision is under consideration, if the teachers, on the one hand, and the board of education and its administration, on the other, would attempt to set down in brief, direct statements some of the things which they believe relative to salary schedules. The statements could eventually be developed into a set of principles to guide the co-operating groups in the development of the final schedule.

A Possible Breakdown

The statements might well be headed, "This we believe relative to teachers' salaries." Those involved in the development of a new schedule would agree on many of the basic points and disagree on others. Setting down the statements, however, would aid in

A. Basic Factors

	Yes	*No*
1. A salary schedule should be adequate to attract teachers of high quality.	☐	☐
2. It should be adequate to retain teachers of experience and effective performance.	☐	☐
3. Schedules should take into account the schedules in nearby districts.	☐	☐
4. The number of days to be taught should be considered.	☐	☐
5. According to the schedule, teachers should be able to obtain salaries comparable to those that they could earn in other lines of work commensurate with their ability, etc.	☐	☐
6. Schedules should take into account the wages or salaries paid to other workers in the community.	☐	☐
7. They should take into account the taxable wealth in the particular community.	☐	☐
8. Compensation should be tied to a cost of living index in the community to be adjusted each semester or each year.	☐	☐

B. Amounts and Increments

	Yes	*No*
1. The starting salary should be at least $4,000 ($4,500) ($5,000).	.....	
2. The schedule should provide an opportunity for the top teachers to reach at least $7,000 ($8.000) ($9,000).	.....	
3. The maximum of the schedule should be approximately twice the beginning salary.	☐	☐
4. The schedule should provide for longevity pay for those who have reached the top.	☐	☐
5. The top of the schedule should be reached in not more than 15 years.	☐	☐

C. Regulations

	Yes	*No*
1. Only teachers with at least bachelor's degrees should be employed.	☐	☐
2. Only teachers should be placed on the schedule who hold at least a minimum, standard certificate.	☐	☐
3. Automatic increments for a teacher whose work has not been satisfactory or who do not show evidence of professional growth should be refused, even though the teacher is on a continuing contract.	☐	☐
4. The schedule should provide for less salary for those who hold other jobs besides their teaching positions.	☐	☐
5. Teachers without a college degree should be handled independently of the schedule.	☐	☐

D. Special Incentives

	Yes	*No*
1. The salary schedule should provide an incentive for additional study and preparation on the part of teachers.	☐	☐
2. It should provide an inducement for improved service.	☐	☐
3. It should provide increases for professional growth experiences other than additional college credits.	☐	☐
4. Teachers who have put in faithful service over a period of years should be rewarded by the schedule.	☐	☐
5. Volunteer service in the community should be considered as a factor in establishing the salary of teachers.	☐	☐
6. Outstanding successes of a teacher either within the district or within another school system should be taken into account in determining his salary.	☐	☐
7. The schedule should provide for additional salary for teachers who make outstanding contributions to their school and to their students.	☐	☐

E. Extra Compensations

1. The salary schedule should provide additional compensation for extra duties.	☐	☐
2. For extra duties, released time should be substituted on the schedule for extra compensation.	☐	☐
3. Men should be paid more than women of equal qualifications, experience, and effectiveness.	☐	☐
4. Additional remuneration should be offered teachers with bona fide dependents.	☐	☐
5. The schedule should provide for higher compensation for teachers in areas of extreme shortage.	☐	☐
6. It should provide extra pay for teachers who handle unusually large classes, either on a permanent or on an emergency basis.	☐	☐
7. Secondary teachers should receive more pay than elementary teachers.	☐	☐
8. Elementary teachers should receive more pay than secondary teachers.	☐	☐
9. Since certain positions (e.g., coaches who are more subject to dismissal) involve more risk and hazard than others, these factors should be considered.	☐	☐
10. Teachers of certain subjects might receive more than teachers of others.	☐	☐
11. The physical conditions under which a teacher works should be considered.	☐	☐

identifying the areas of differences and in isolating the factors which should be brought up for further study and consideration. Beginning with the development of principles would give some assurance to the teachers and to the board of education that the schedule that eventually resulted would have some likelihood of conforming to the general philosophy of education prevailing in the community and to the needs and interests of teachers and other citizens.

Many factors which have been taken for granted in salary schedules during recent years need to be re-examined from time to time. It is not always desirable to raise every issue on every occasion. But it seems that a thoroughgoing study of salary schedules would demand that periodically all those concerned with the development of the schedule would be given ample opportunity to present their individual viewpoints. Teachers may have certain views that do not agree with those of administrators and members of the board. Board members may have views that are quite different from those of the teachers. Ignoring the possibility of these differences, glossing things over, and not coming to grips with the basic differences may well stand in the way of developing forwardlooking schedules which would provide salaries more consistent with the importance of teaching.

Points made in the list of statements illustrated in this article may be raised for consideration. Some of the items may be close to the hearts of teachers. Some may be opposed by teachers, but may be championed by members of the board. A rather complete list, however, would bring out the areas of agreement and pinpoint the areas of differences. These statements are viewpoints which might be expressed by either the teachers, the administration, the board of education, members of citizens' committees, or by all of them.

Some of these considerations might not enter into the thinking of either the teachers or the board of education. Any one of them, however, might conceivably be considered important by someone involved in the development of a new schedule. The significant point is that opportunity should be provided for bringing all ideas into the open so that disagreement will not be on the proposed schedule as a whole, but rather on specific aspects and provisions of the schedule. Only through the careful airing of various viewpoints can these differences be isolated and identified, and their merits be adequately weighed.

The Salary Mediator

Another consideration which is oftentimes overlooked is the fact that an outside consultant or mediator might be very helpful in bringing out and reconciling various viewpoints. Frequently people who live very close to a situation are reluctant to express themselves lest their views be interpreted as being extremely personal. An administrator of a school system sometimes feels handicapped in this respect. If he brings out considerations that are not consistent with the thinking of the board, he may be blamed for advocating certain views which he is raising only for consideration. Representatives of the teaching group may place the same interpretation upon ideas which he presents. In matters of district reorganization, schoolhousing, evaluation of curriculum, and other aspects of the school program outside help is often sought. Rarely, however, is someone brought in when revisions in the salary schedule are under consideration. The outside agent might be much freer than anyone within the school system to discover areas of difference between the teachers and the board of education.

The teaching group quite commonly raises the point that teachers are underpaid. More precisely they mean, perhaps, that some, or even most, of the teachers are underpaid. In the minds of some of the members of the board of education the thought may arise that some teachers are also overpaid. Those interested in advancing the salary schedule will likely point out that teachers are worth considerably more than they are receiving. They mean, perhaps, that the best teachers are worth more than they are receiving. In the minds of the board of education the idea may arise that the poorest teachers are worth less than they are currently receiving. Likewise it is often emphasized that teachers could earn much more money in business or industry. The statement might be more exact if it pointed out that many of the teachers could earn more in business or industry, but that many of them could not earn as much in other fields as they are currently earning in teaching.

In the same tone, arguments for increasing the salary schedule frequently present the idea that teachers are hard-pressed financially. In the minds of the board of education the idea may prevail that many teachers are getting along better financially than the majority of the citizens in the community. These and other areas of conflict might be identified and brought out for free and open discussion by both sides if someone who is not personally involved in the situation were available to assist in the process.

It is possible that more and more teachers' groups and boards fail to arrive at satisfactory schedules because most salary negotiations fail to begin with basic principles.

Careful Study Needed

Careful study of the principles underlying a sound salary structure should result in better programs of education and remuneration for teachers that is more in keeping with their significant contribution to society.

It is unfortunate, indeed, that the annual negotiations relative to salaries should run the risk of jeopardizing the harmonious working relationships among those dedicated to providing and improving educational opportunities. Every effort should be made to reduce this danger to a minimum. ■

Re-examining the school's program to insure that every child is educated to full capacity in the light of current research in the psychology of teaching: the challenge to the administrator —

The Administrator and Special Education

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Past research has proved conclusively that no one — educator or layman — can take a group of individuals of varied intelligence and physical construction, and ability, and expect each of them to master the same tasks with equal facility. And yet, ignoring this proved fact, school personnel often exert inflexible efforts to teach a child a skill long after diagnostic tests have assured them that he is incapable of acquiring it. Since it is a part of the curriculum, every child is supposed to learn it, and so they pursue their dogged and futile way. Paradoxically, many educators accept the existence of the tests themselves as being a necessary part of modern education. They swear by the tests as such, even though they may not pay attention to the findings derived from the tests.

Nor do they always pay appropriate regard to the true function of guidance counselors in their schools. Too many schools today tend to relegate these workers to the category of psychometrists, registrars' assistants, and vocational reference librarians, instead of acknowledging them as trained social educators. Such an over-all attitude in a school is largely the administrator's fault, for most intramural attitudes tend to take their coloring from his. It might be argued that the guidance counselor should "stick up for his rights," and probably there is some justice to that contention; nonetheless, there is nothing inherent in his position that calls for strength of character, while it is certainly a vital part of the administrator's job to ensure an adequate program of guidance and to keep trained psychologists from being used to serve as little more than clerks — or merely as human tranquilizers.

Too often this weakening of the guidance department's function stems from the administrator's own feeling that there is no real necessity for such a department, that he himself "knows as much as any counselor," and, hence, is fully equipped to handle any guidance program. However, the truly mature and efficient administrator will realize that, just as his training and education qualify him for his particular job, so the training and education of the guidance counselor qualify him for the work he does. Neither can replace the other. Again, special education has fitted each one for his role in life.

The Administrator's Functions

Just what does the administrator's job consist of? It is true that it involves many routine aspects of school management, such as budgeting and bookkeeping, filing reports, and so on. However, these are not the basic problems that concern him; his primary task is to deal with the problems of the children themselves. If the school is to be considered comparable to a large industrial plant, then dealing with children is its business. And, since the administrator is the head of that plant, dealing with children is his responsibility.

Some administrators do not know how to handle that responsibility from the very beginning. For example, let us take a school principal who heads an elementary school with an enrollment of 900 children. He might reason that, since classes in his school number 30 pupils each, all he has to do is arbitrarily divide the 900 by 30 — which will give him 30 teaching units. Then he will get 30 teachers to teach these units, instruct each one to teach every child as an individual and, at the same time, fulfill the course requirements — and his job, he thinks, is done! Every child will be receiving the education to which he is entitled.

There is only one thing wrong here: the administrator's job is not done; it has not even begun. He has failed as an executive. He would not last a minute in the executive offices of any large industry, where personnel policies are conducted according to far more complicated procedures than in many of our schools. Before a worker is hired by one of these industrial plants, he is given a battery of tests to determine whether he is fitted physically, intellectually, and emotionally for the job; or — in the case of a labor shortage — the applicant is tested to determine what jobs within the company are best fitted physically, intellectually, and emotionally to him.

The Real Job

There is no reason why a school system should be less exacting than industry. What the principal should do in this case is try, within the limitations of 30 set teaching units, to group those 900 children according to previous educational attainment and demonstrated abilities, so that they can most efficiently be educated, that is, to group them as much as possible with their peers. He should also try, within the undeniably scant limits of what candidates are available, to secure 30 teachers, each of whom is well qualified to teach a particular one of those 30 classes. Only then will he have made a first step toward giving each child the education to which he is entitled.

Again, that same principal very probably would reply to a teacher who complains — with considerable justification — that it is virtually impossible for her to give adequate instruction to each child in such a diversified group as she has been assigned, that a really good teacher should be able to teach any individual child in any group. However, he might, if he is kindly, add that she should do the best she can and, if

she needs help, call on the supervisor. He might also suggest that, since the teacher will need to take certain courses for alertness credit in any case, it might be a good idea for her to take those courses in differential psychology, choosing the various fields of exceptionality that seem to present themselves most often in her classroom.

It will not occur to the principal that, no matter how many courses the teacher takes, she will not be able to give individual attention to the children in her classes, when, in addition to a heavy teaching load, she has bus duty, study hall duty, and playground duty; she has to keep voluminous records and file intricate reports; she has to collect book fees; she has to sell refreshments at football games; and, to top all this, she may also be serving as faculty adviser for one or another of the school's extracurricular activities.

He is far more likely to suggest that the child who seems to present an insoluble problem be sent to the testing bureau (of course, when the results of the tests come in, they should not be disregarded) or to the reading clinic, which — since certain educators have made the discovery that poor reading ability in a child can be a sign of poor emotional adjustment — is rapidly becoming a catchall for any problem that does not fit in elsewhere. Our eighteenth- and nineteenth-century ancestors were not too sophisticated to overlook the obvious; they could have told him that poor reading ability in a child can also be the result of poor teaching ability in the instructor or poor cortical make-up of the child and/or a combination of both, or it could be the result of a poor school program.

The Gifted Administrator

A good administrator must be carefully fitted to his job. Not only must he have all the necessary degrees and skills, but he should have the quality of being able to encourage and inspire the teachers on his staff. A truly gifted administrator, with a reputation for dedication to his profession, will often have much less trouble than other principals in recruiting teachers for his school, in spite of current shortages, even though he may not be able to offer anything more substantial in the way of salary or physical working conditions.

The good administrator must constantly be in contact with his staff so that he has a personal awareness of any difficulties under which they may be laboring, and he must try to minimize such difficulties wherever it is even remotely possible to do so. Further, he must keep pace with the latest trends and research in his field as conscientiously as a manufacturer keeps up with the latest developments in his. He must be familiar with the educational problems of the handicapped as well as with the educational problems of the normal, with special education as well as the standard curriculum.

He must be able to understand, and to make his superiors understand, that perhaps heterogeneous education may be costing the school less money than an equivalent system of special classes — though even that need not be true in all situations — but it is costing the nation a good deal more in conspicuous waste of human resources. Under normal conditions, no factory executive would consider using the machinery in his plant at less than full power to manufacture the best product. Why, then, should any school fail to make use of a program that will use the teachers who are the machine tools in that plant to the fullest extent of their potentialities and develop their students to the fullest? Why should any principal continue to plod along utilizing an outmoded program that has been clearly shown to breed intellectual friction, social maladjustment, and even delinquency, when applied to the conditions of twentieth-century life?

The Outlook for the Administrator

Watering down the curriculum by depriving it of a good deal of its intellectual content means reducing the goal of our children's abilities to the lowest common denominator. But children cannot be lumped like arithmetical symbols; every one of them is an individual, with individual needs which must be considered by the educational program before they can perform their individual functions competently. There is no reason why the dull, the average, or the gifted child should be forced to submit to a curriculum that fits him no better than a pair of shoes lasted for someone else. All three have contributions to make, and all three should be allowed to make them in their own way, rather than to be battered into a low-level mediocrity (or a vegetable existence) by the school's effort to achieve "sameness" in every one of the children in its charge.

The administrator's task is to see that the facilities of his school are expanded to the utmost in order to make it possible for each child's potentialities to be developed. It is up to him to try to get the funds for such special programs as he feels are not only needful but feasible for a school of the size of his, and it is up to him to try to convince his board when it is reluctant, that such programs are vitally important.

Where the school is small and its budget limited, so that, no matter how liberal the superintendent's and his board's outlook, special classes must be few, if any, then it is up to him to try to discover what enriching opportunities or experiences the community can offer the children to supplement the education that the school can afford to give them. He must, moreover, also see to it that his school is serving as many of the children in the district as it possibly can, as well as it possibly can. Even when his school does have a program of special education, he must make sure that it is the kind that is most appropriate to the needs and demands of his particular community. He should see to it that children are sent forward in grade according to a truly social type of promotion — and that it is the kind of promotion that advances the child on the basis of his successful completion of a given amount of the work that has been determined to be well within the scope of his capabilities.

The problem of educating all of our children to full capacity is a pressing one today, for, in the ideological kind of wars we are fighting, education has become one of our most powerful weapons. As the president of his country, Dwight D. Eisenhower, has stated:

> Our schools are strong points in our national defense. Our schools are more important than our Nike batteries, more necessary than our radar warnings nets, and more powerful even than the energy of the atom. . . . To maintain the common defense and to guarantee the progress of our nation, each of us must discharge his own rightful and proper role in developing the intellectual capacities of all children . . . in every corner of our land. . . .[1]

The Challenge

The challenge to the administrator, therefore, is that he re-examine his school program through the light of current research in the psychology of teaching children who are different, because the very weighty problems in our schools today arise from our failure to consider seriously the individual child, although we do pay lip service to individual differences. The schools must cease tranquilizing a sizable number of our very valuable human resources until they are "promoted" out of the school into frustration, hostility, delinquency, sorrow, unhappiness. or bitterness. This is the challenge: Political expediency under the guise of a questionable social psychology must give way to a reality that embraces strong moral, spiritual, social, and intellectual values. ■

[1]Eisenhower, Dwight D., "Education, the Most Important Subject," *NEA Journal*, XLVI (May, 1957), 300–302. One of the state schools in Maryland is supported by the District of Columbia for the benefit of Washington residents.

A Short Course for Teachers

IRA FREEDMAN
Public Information Office,
Schenectady, N. Y., Schools

The husky insurance agent helps the tots put beans in the chuck wagon for their picnic "out on the range"; the newspaper ad man is up to his elbows in liquid papier-mâché, and the office secretary relates a story about knights and dragons to half-a-dozen first graders group around her on the floor.

Scenes such as these take place every summer at Yates School, Schenectady, N. Y., where Oneonta State Teachers College in conjunction with the Schenectady schools, maintains a six-week training session to help prepare college graduates for a new career as public school teachers. Here housewives, office workers, young adults fresh out of liberal-arts colleges, former high school instructors, and a potpourri of business and professional people spend each morning with elementary school youngsters doing such things as constructing a frontier cabin, painting a mural, carving marble, operating a sit-in model of an airplane complete with controls, going on overnight hikes, taking nature-study field trips, or taping recorded comments for a home-made movie.

Guiding the neophyte teachers are members of the college staff plus experienced members from the city schools. Afternoons are devoted to lectures and discussion of teaching techniques and an analysis of the morning's activities.

Known officially as the ITTP — Intensive Teacher Training Program — the course runs for four summers. After successfully completing the first summer at Schenectady, students are given a temporary teaching certificate enabling them to start work in public elementary schools of the State of New York the following September. Permanent certification and a degree are earned by attending three subsequent summer sessions at a nearby state teachers' college.

Bernard Joslin, director of the program, says it "attracts some very fine and capable people into the teaching profession," while Wendell Andrews, director of instruction for the city schools, points out that the mature students "bring a wealth of information and background to their teaching."

Adult students give a wide variety of reasons for attending the ITTP. A man who was a psychology major at college and who was employed in the credit office of a large mail-order concern observes, "I've had a desire to teach for some time, but I hadn't had an education background. This course does the trick . . . and everything is on a mature plane."

A secretary says she figured on being a teacher before World War II; a housewife who formerly taught high school wants training for the elemen-

Teachers-to-be learn about children as well as tools of instruction in such projects as basket weaving (above) and Indian lore (below).

Above: History, English, arts and crafts, and home economics join forces when pupils construct a colonial cabin and carry on frontier household duties. Below: Rodeo time introduces the student-teacher to an integrated program of physical education, art, music, and often, social studies.

tary grades; one of the students, a graduate engineer, takes the course for fun. "I enjoy dealing with children and helping them learn," he explains. "I don't plan to teach. I'm just taking advantage of this opportunity."

Others point out the economy of time and cost to family breadwinners. As one puts it: "I'm taking off two summer months now, but I'll be able to start active teaching in September."

Typical of the guiding staff is George Weinheimer, local school art director, who works with children, the adult students, and the teacher-supervisors. In Weinheimer's words, his main job is showing the group *how* — how to make papier-mâché puppet heads, paper bag puppets, using colored chalk, and setting up mobiles — those creations of moving sculpture made of dowel sticks, wire coat hangers, brush wood, and shapes of colored paper. Other activities involve powder paints, toothpick sculpture, printing with pieces of old inner tube, and making silhouette prints of leaves and flowers on blueprint paper.

Art and science join forces on the numerous field trips that enliven the program. On one expedition, Alfred Hulstrunk, science consultant, Weinheimer, students and youngsters spend an hour at a swamp. A bonus of the firsthand natural science lesson is a bushel of cattails and swamp grass. These are dried out at the school and are later woven into mats and baskets.

In the summer of 1957 a subterranean attraction was added to the educational bill-of-fare. It was an underground cave in the Helderberg Mountains about twenty miles from the school. Prior to the first trip Hulstrunk and Weinheimer together with several assistants descended into the cavern and decorated its walls with simulated cave drawings resembling the sketches made by prehistoric man thousands of years ago. Now classes get history and art in addition to stalactites, rocks, minerals, bats, and an underground lake. Safety lessons penetrate every cave trip. Sometimes pupils bring back a quantity of raw clay, process it, do their modeling, and fire their handiwork in an electric kiln.

Other field trips characterize the activity nature of the course — visits to the airport, animal shelter, canal lock, wildlife sanctuary, and state park.

Another instructor is Elsie Rule of Potsdam State Teachers College who works with teachers-to-be in showing them activities they may carry on in the classroom. "We work on singing, rhythmic projects, listening, and use of notes and musical symbols," Miss Rule points out. "In addition, we learn the basic social instruments such as the auto-harp, guitar, and ukelele, tonal devices such as the xylophone and melody bells, and such rhythmic instruments as the tambourine and wood block." Demonstration lessons show how these instruments may be used in teaching music in the elementary grades.

Adults also get instruction in art techniques, science demonstrations, the use of hand tools and power saws, and audio-visual equipment.

The atmosphere at Yates School is charged with learning. Both adult pupils and their young classmates jointly plan and execute. In one room a group discusses the possibility of a visit to a tree nursery, next door a group is hammering and sawing a nine-foot sailboat model into shape, while nearby a third class is getting ready for its western-style picnic. Always a success, this project involves children in baking beans, preparing jello, readying a chuck wagon, and making branding irons from stiff wire coat hangers. These are dipped into paint and pressed against a cloth neckerchief to imprint the "brand." Down the hall other pupils are making life-size silhouettes of their classmates, taking part in an illustrated science lecture, studying air power, singing, and constructing a model Indian village.

Children who don't attend camp or vacation in July with their families profit from the center's enriched educational program, but how do the adults fare? Joslin says success invariably comes to the participants and attributes this to their maturity, strength of purpose. and the assistance provided by the experienced Schenectady teachers. "In follow-up studies of ITTP people, Oneonta has discovered they have achieved a high degree of success in their work," Joslin declares.

Present plans indicate a continuation of the program because of prevalent teacher shortages. ■

A study of —

Voting Records and the School Board

DAN C. SHANNON
San Diego, Calif.

It has been claimed repeatedly by writers in the field of school administration that the elective method of selecting school board members creates greater public interest in the work of the board and of education in general than does the appointive method. This claim has been made so frequently that it is often mistaken for a principle of school administration.

If the claim that "boards of education should be elected because the elective method creates greater interest of citizens in the work of the board than does the appointive method" is a principle of school administration, then it would follow that it would be universal in application, being equally valid in all cases. This would mean that citizens in school districts with elected school boards would have greater interest in their schools than do citizens living in comparable school districts with appointed school boards. It would also mean that citizens living in various sized school districts with elected school boards would have about the same amount of interest in their schools.

Method of the Study

How can interest be measured? If a researcher were to ask a number of citizens if they were interested in their schools, the results would have little value because the term "interest" would be too vague for any specific use. In order to find a specific item that can be checked, some assumptions must be made.

It can be assumed, for example, that interested citizens will have a better voting record in school-connected elections than those who are less interested in school matters. Election results are specific and can be compared from one school district to another. If a researcher were to compare voting records of school-connected elections in school districts with elected school boards with those from comparable school districts with appointed school boards, some valid conclusions could be drawn about the superiority of the elective method of selection for school boards. Also, if the voting records in school-connected elections for school districts of various sizes with elected school boards were compared, it could be seen whether or not the interest of citizens is uniform in various sized school districts.

If it were to be found that citizens in school districts with appointed school boards had better or as good voting records as citizens of comparable school districts with elected school boards, then certainly doubt would be cast on the statement that the elective method of selection for school boards creates more public interest in schools than does the appointive method. Also, if it were found that there were a great difference between voting records for school-connected elections from various size school districts with elected school boards, then it could be claimed that the claim that the elective method is superior to the appointive method for the selection of school board members is not valid.

In order to carry out such a proposed research, comparable school districts had to be located with appointed and elected school boards. These were found in California. Two school districts were located that had appointed school boards; Alameda Unified School District and Sacramento City Unified School District. Comparable school districts with elected school boards were selected to match the school districts with the appointed boards. These were Santa Monica Unified School District and San Diego City Unified School District.

Four smaller school districts were selected with the approximate size of 5000, 10,000, 20,000, and 50,000 population. These were Carlsbad Union Elementary School District, San Dieguito Union High School District, Oceanside-Carlsbad Union High School District, and Sweetwater Union High School District.

The number of registered voters and of votes cast in school-connected elections were obtained from the respective offices of the registrar of voters, from school board minutes, and from newspaper files. The per cent of registered voters who actually voted was ascertained. The elections studied were school bond elections and tax-increase elections. Results from school bond and tax-increase elections were studied from all eight selected school districts. School board elections were studied for the six school districts having elected school boards. Elections were studied for the ten-year period from 1947 to 1957.

Is it really true that districts with elected boards of education have greater citizen interest than those with appointed boards of education?

TABLE I. Voting Records for Bond Elections for All Eight School Districts Studied[1]

School District	Date of Election	Per Cent of Registered Voters Who Voted	Per Cent Who Voted for the Bonds
Alameda Unified School District	1948	56.4[3]	84.6
	1953	22.2[2]	81.3
Sacramento City Unified School District	1947	36.2[2]	87.2
	1951	32.6[2]	74.3
	1955	45.6[2]	87.2
Santa Monica Unified School District	1950	21.9[2]	89.4
	1957	22.8[2]	83.2
San Diego City Unified School District	1946	33.6[5]	72.7
	1950	41.6[5]	81.5
	1953	14.5[6]	77.8
	1956	46.7[4]	80.1
Sweetwater Union High School District	1946	47.2[5]	75.7
	1951	11.4[2]	85.9
	1954	9.6[2]	67.1
	1956	17.9[2]	65.3
	1956	51.2[2]	79.5
Oceanside-Carlsbad Union High School District	1948	53.1[2]	77.6
	1952	29.2[2]	66.5
	1952	47.1[2]	52.8
	1955	24.4[2]	69.9
San Dieguito Union High School District	1950	49.4[2]	73.2
	1953	33.4[2]	71.9
	1956	30.9[2]	77.0
Carlsbad Union Elementary School District	1948	20.9[2]	90.3
	1950	21.4[2]	87.0
	1951	26.0[2]	83.8
	1955	41.2[2]	75.1

[1]By California law, a two-thirds majority of votes cast is necessary to pass a bond election.
[2]Special elections held in conjunction with no other election.
[3]Held in conjunction with State Primary election.
[4]Held in conjunction with Presidential General election.
[5]Held in conjunction with Gubernatorial and U. S. Senator General election.
[6]Held in conjunction with municipal election.

TABLE II. Voting Records for Tax-Increase Elections for All Eight School Districts Studied[1]

School District	Date of Election	Per Cent of Registered Voters Who Voted	Per Cent Who Voted for the Tax Increase
Alameda Unified School District	1957	38.3[2]	56.1
Sacramento City Unified School District	1951	32.6[2]	70.2
	1956	35.2[2]	74.7
Santa Monica Unified School District	None		
San Diego City Unified School District	1956	40.7[3]	69.6
Sweetwater Union High School District	1948	3.6[2]	75.7
	1951	11.3[2]	82.0
	1956	19.9[2]	64.4
Oceanside-Carlsbad Union High School District	1953	10.3[2]	53.9
San Dieguito Union High School District	1951	24.3[2]	54.5
	1952	29.9[2]	61.5
	1954	41.7[2]	63.6
Carlsbad Union Elementary School District	1953	20.6[2]	55.1

[1]By California Law, a bare majority is required to pass a tax-increase election.
[2]Special election held in conjunction with no other election.
[3]Held in conjunction with Presidential General election.

TABLE III. Average of the Per Cent of Registered Voters Who Voted in Bond and Tax-Increase Elections for All Eight School Districts Studied in Rank Order of Per Cent

School District	Average of the Per Cent of Registered Voters Who Voted in Bond and Tax-Increase Elections
Alameda Unified School District	38.9
Sacramento City Unified School District	36.4
San Diego City Unified School District	35.4
San Dieguito Union High School District	34.9
Oceanside-Carlsbad Union High School District	32.8
Carlsbad Union Elementary School District	26.0
Santa Monica Unified School District	22.3
Sweetwater Union High School District	21.5

TABLE IV. Per Cent of Registered Voters Who Voted in General Elections Since 1946 in California for the Unified School Districts Studied

Year	Per Cent of Registered Voters in Sacramento Who Voted	Per Cent of Registered Voters in San Diego Who Voted	Per Cent of Registered Voters in Alameda Who Voted	Per Cent of Registered Voters in Santa Monica Who Voted	Per Cent of Registered Voters in the Entire State Who Voted
1956	87.8	82.9	82.4	85.2	86.6
1954	74.3	65.1	64.6	67.1	69.7
1952	86.1	80.2	80.6	87.6	86.9
1950	80.7	68.1	67.7	71.5	73.3
1948	83.3	76.4	76.9	82.1	80.5
1946	68.3	58.4	58.8	63.7	62.9
Average of the six elections	80.08	71.85	71.83	76.20	76.65

TABLE V. Voting Records for School Board Elections for the Six School Districts Studied Having Elected School Boards

School Districts	Date	Per Cent of Registered Voters Who Voted	Date	Per Cent of Registered Voters Who Voted	Average of the Per Cents of Registered Voters Who Voted
San Diego City Unified School District	1947	37.3	1953	26.2	
	1949	39.6	1955	52.2	39.7
	1951	54.9	1957	27.9	
Santa Monica Unified School District	1947	50.6	1953	27.1	
	1949	31.4	1955	49.0	37.7
	1951	30.0	1957	38.2	
Sweetwater Union High School District	1947	2.0[1]	1953	1.9	
	1948	4.3	1954	1.7[1]	
	1949	2.1[1]	1955	1.5[1]	3.6
	1950	2.0[1]	1956	9.5	
	1951	1.1[1]	1957	9.5[1]	
	1952	3.6			
Oceanside-Carlsbad Union High School District	1947	8.3	1952	12.5	
	1948	7.3[1]	1953	6.3[1]	
	1949	[2]	1954	3.7[1]	11.9
			1955	22.5[1]	
	1950	3.2[1]	1956	18.5[1]	
	1951	8.3[1]	1957	29.1	
San Dieguito Union High School District	1947	14.1[1]	1952	7.7	
	1948	[2]	1953	20.5	
			1954	10.6	14.5
	1949	9.3	1955	17.0	
	1950	9.2[1]	1956	20.6	
	1951	23.2	1957	13.1[1]	

[1]Indicates cases where the number of candidates was the same as the number of vacancies.

Table I presents the per cent of registered voters who voted in bond elections and the per cent of votes cast in favor of the bonds. Table II presents the per cent of registered voters who voted in tax-increase elections and the per cent of votes cast in favor of the tax increase. Table III presents the average voting records of bond and tax-increase elections in rank order by per cents. It can be seen that the average records for Alameda, with an appointed school board, is higher than that of its comparable district with an elected school board, Santa Monica; and that the average voting records for Sacramento, with an appointed board, is higher than that of its comparable district with an elected school board, San Diego.[1]

Many school districts hold school-connected elections in conjunction with other elections in the hope of getting a higher turnout of registered voters, on the assumption that the higher the turnout, the better the chances for getting the issue passed. It is indicated in Tables I and II which elections were special and which were held in conjunction with other elections.

If the assumption that fewer citizens do vote in special school-connected elections than in other elections is true, a closer examination of the per cent of registered voters who voted in the reported school-connected elections must be made. All the school-connected elections studied for San Diego, with an elected school board, were held in conjunction with other elections; municipal, state, and national. All the school-connected elections for Sacramento were special elections held in conjunction with no other election. And yet Sacramento, with an appointed school board, had significantly higher voting records!

Both the school-connected elections reported for Santa Monica were special elections. Of the three school-connected elections reported for Alameda, two were special elections and one was held in conjunction with a congressional primary election. This election had an extremely high turnout, 56.4 per cent. To get a clearer comparison between the turnout of the school-connected elections for Santa Monica and Alameda, the election in Alameda held in conjunction with a congressional primary election may be deleted. Even with these elections results taken out of the computation, it was found that Alameda, with an appointed board, still had a significantly higher voting record than Santa Monica, with an elected school board!

[1]By using the standard error of the per cents and the critical ratio between the per cents, it was found that this difference was significant.

If voters in Alameda and Sacramento vote in higher proportion in general than do voters in Santa Monica and San Diego, then it could easily be understood that they would vote in higher proportion in school-connected elections. But this is not true. Table IV presents the per cent of registered voters who voted in general elections from 1946 to 1956 in the four cities in review. It can be seen that Alameda did not have as great a turnout any of the general elections as did Santa Monica. Therefore, the greater turnout of voters in Alameda for school-connected elections cannot be accounted for by greater voter interest in general in Alameda. It can also be seen that the turnout of registered voters in Sacramento for general elections has been consistently higher than that of registered voters in San Diego. This might account for the higher turnout of voters in Sacramento in school-connected elections than for San Diego. The principle, as stated, though, would indicate that because Sacramento has an appointed school board, it would not have as high a turnout in school-connected elections than voters in San Diego, having an elected board.

School Issues Ignored

It is interesting to note, by comparing the per cent of registered voters who voted as presented in Tables I and II with the figures in Table IV, the great difference of the per cent of registered voters who didn't bother to vote for the school issues at the general elections in San Diego for the years 1946, 1950, and 1956. The turnout for the general election in 1956 for San Diego was 82.9 per cent, while the per cent of registered voters who voted for the school bonds at that same election was 46.7 per cent. while an even smaller per cent, 40.7, bother to vote for the tax increase. In the 1950 general election, the turnout was 68.1 per cent for the general election, but only 41.6 per cent of the registered voters voted for the school bonds while they were at the polls. The same picture is seen in the 1946 general election in San Diego, with 58.4 per cent turnout for the general election and only a 33.6 per cent turnout for the school bonds at the same polling places and same time!

Voting records in themselves do not necessarily indicate the level of favorable interest in the schools. Citizens who are opposed to the policies of the schools will probably vote against bonds and tax increases. Therefore, a high voting record does not necessarily indicate high favorable interest in the schools. As Tables I and II show, citizens in Alameda and Sacramento, both with appointed school boards, supported school bonds and tax increases as well as citizens who live in the other school districts studied that have elected school boards.

Bonds and Tax Increases

It may be noted that the per cent of voters who voted in favor of tax increases is consistently less than for bond elections.

Table V compares the voting records and the average voting records for school board elections of the six school districts studied that have elected school boards. It can be noted that there are *great differences* between school districts in the per cent of registered voters who vote in school board elections. There were four cases where data were not available, because school board minutes of some school districts have been lax in reporting the actual vote received by candidates. The larger cities had a higher turnout to vote for school board members than did the smaller cities and towns. This indicates that size of school district affects voter interest in school board elections.

It appears that small school districts have much less interest in school board elections than do citizens living in school districts in metropolitan areas. It was found, while studying the voting records of school board elections, that it is not uncommon to have no candidates run for vacancies on school boards. The vacancies, in such cases, are filled by one or two write-in votes cast for a person who did not choose to run for election. This certainly does not show great interest of the citizenry in the affairs of their schools!

Some Conclusions

It has been pointed out that Alameda and Sacramento, both with appointed school boards, have significantly higher voting records than do the other school districts studied, having elected school boards. Using voting records of school-connected elections as a measure of interest in school affairs, it is concluded that the method of selection for school board members makes no difference in the interest citizens have in the schools. Certainly these data so far as interest of citizens in voting on school matters is concerned do not show superiority of the method of electing school board members. The repeatedly claimed statement of writers in the field of school administration that "boards of education should be elected because the elective method creates greater interest of citizens in the work of the board than does the appointive method" is declared to be an armchair principle, having little, if any, data to support it. ■

To boost teaching, don't overlook —

Homemade Science Projects

WILLIAM F. TUCKER
Assistant Principal, Oceanside, N. Y., Junior High School

"Some of my greatest experiences as a science teacher have been receiving the wonderful projects made by students in my classes. Some of these projects have equaled the design and construction of expensively purchased equipment and models." So spoke an experienced and competent science teacher in the Oceanside junior high school, Oceanside, Long Island, N. Y.

In her reminiscences this teacher was pointing up two important, but sometimes forgotten, facts about an effective junior high school science program: (1) that it must be personalized for each pupil, and (2) that it is *not* necessarily dependent upon expensive equipment. Upon close inspection these conditions do not seem so incompatible, even in this day of rising educational costs.

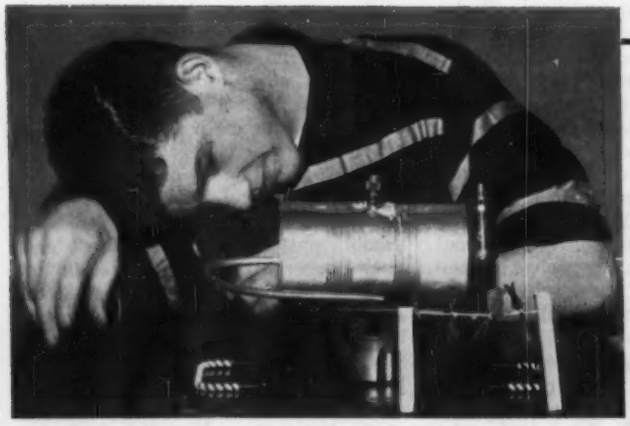
Teachers have long recognized the need for differentiated instruction to meet the extensive variations among pupils in their intellectual, physical, social, and emotional development. An effective method of meeting this challenge is the encouragement of individual and group project work by pupils, depending upon their interests and talents.

Such projects often culminate in models, displays, exhibits, and reports which become valuable teaching aids for the rest of the class, as well as for succeeding classes. Often these aids can be more effective than the more finished — and, incidentally, more expensive — commercially manufactured ones. The pupils who participate in such projects benefit greatly from the firsthand experience gained in the work, while other youngsters identify easily with these simple "homemade" materials made by their classmates.

Special Interests

In the Oceanside junior high school science teachers make note of the special interests and abilities of youngsters in their classes. Pupils are asked at first to work on such simple projects as setting up demonstrations, arranging bulletin board displays, or preparing library reports. Such projects demand little supervision. Gradually the more able pupils begin to select problems and projects of broader scope. Some build elaborate models, devise original experiments, or carry on library research. Although much of this work can be done outside of school hours, the teacher offers some encouragement and guidance, perhaps while other members of the class are reading or working on other projects. The teacher's chief function is to help the pupils find materials and to offer suggestions when difficulties present themselves.

The provision of class time for pupils to work in small groups is one technique. Such experiences foster individual participation, teamwork, planning, and leadership. Two or three



Above: A ninth grader constructed a steam turbine engine in shop and demonstrated its use in his science class. Right: A junior high boy's model of a type of caisson used in bridge-building to raise silt from the river bed.

Two junior boys ex- constructed wind tun- for testing various

pupils may set up a demonstration, prepare an exhibit, or look up information in the library while the rest of the class continues its regular work.

Small informal groups may also work together in out-of-class time, during study periods, or after school. Such group work requires careful planning and skill on the part of the teacher. A series of related problems may be set up and the class divided into several small groups, each to work on a problem of its choice.

Examples of Projects

Projects completed by individual seventh graders have included: a model of an atom display using a marble for the nucleus with wires extending out to indicate electrons; an impressive collection of animal and plant life brought back by a boy from his Florida vacation; a model of a brain made of plaster of Paris; a model of an atom made from wrought iron; a model of the human body showing bodily functions; and a workable fire extinguisher.

In an eighth-grade general science class the particular interests of pupils inspired the following: a homemade Geiger counter consisting of a simple electronic circuit utilizing a Geiger-muller tube; a three-stage rocket model showing parts and mode of separation and firing of stages; a model of the separation of the valuable U235 isotope; a manometric flame vibrator depicting a study of sound using images of flame variations; and a cloud chamber. In the same class other students constructed a homemade electric generator, a model of the human eye, a wax model of the human heart, a radio receiver, and a model showing the distribution of electricity from the generating plant to the various parts of a home.

A committee of ten superior students in an eighth-grade class did an impressive research report entitled "Space Travel." The library investigations and other research was done by the youngsters with a minimum of guidance by the teacher. Diagrams were prepared by students to illustrate the presentation of the report which was duplicated so that every member of the class might have a copy.

The following are representative projects completed by ninth-grade pupils: a model of the atomic structures of elements one to eight and their isotopes; a project in chromotography, separating pigments in chlorophyll by filtering through packed columns; a model of an atomic reactor and electric power plant; the making of light bulbs, various fuses, electromagnets, telegraph keys and sounders, telephone apparatus, electric circuits, a one-tube radio, and electrical games.

One class enjoyed a firsthand experience in the growth of bacteria when a committee of three students prepared the nutrient agar and contaminated it by exposing it to various possible sources of bacteria, including the boys' locker room, sour milk, stagnant water, and coughing.

One group of ninth-grade pupils became interested in behavior and did a study of the behavior responses of mice through the use of a maze which the boys made in their industrial arts class. A boy in the same class constructed a wind tunnel to test various air foils at different air speeds, while other boys were making a steam turbine and a caisson. Others made models of the transformation of electrical energy into mechanical energy. One boy took apart the ignition system of a car, displayed it, and described its workings.

In the study of motor generator electromagnets three ninth-graders questioned the following statements accepted by other members of the class: (1) that insulated wire is necessary in an electromagnet, (2) that the coils of an armature must be "reverse wound," and (3) that the "brushes" could be permitted to touch only one segment of a commutator. The friendly debate was resolved when members of the class made and demonstrated electromagnets representing both points of view to determine which would work.

Individualized Instruction

The science teachers of the Oceanside junior high school feel that by individualizing their instruction through the above techniques they are helping to develop the scientific knowledge and understanding of every child to his intellectual capacity. These methods also have the advantage of capitalizing on the scientific curiosity and interest of the early adolescent. ■

Examples of Student Science Projects –

The effective junior high school science program can be based on individual and group project work. This work frequently culminates in models, displays, exhibits, and reports. Participating in such projects enables students to benefit from practical demonstrations of theories studied and other students identify their studies with "homemade" materials.

amine an inexpensively
nel that is used extensively
types of air foils.

A ninth grader shows the conversion of electrical power into mechanical.

A list of suggestions that indicate —

Some Construction Methods Cost Less Than Others

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It has been pointed out[1] that the use of certain principles of architectural design can save money for a board of education, but that employing just any architect and then expecting him to apply those principles is virtually hopeless. So it is with construction principles and practices. Certain of those principles and practices cost less than others, but the "old dogs" among school architects are no more eager to learn "new tricks" than are old canines! If you think some of the suggestions for saving money which follow are worthwhile and should be used in *your* construction program, then by all means make construction principles and practices one of the criteria to be used in selecting an architect. DON'T, under any circumstances, employ just any architect and then hand him the following list of practices with a mandate that he use them.

The following suggestions are arranged according to what educator-architect teams from 34 states said was the order of importance in actual savings in recently constructed school buildings.

1. *Make certain the architect can and will provide competent supervision throughout construction.* This is often taken for granted; but, in checking with boards of education who have changed architects, lack of proper supervision is one of the most frequent causes of dissatisfaction. A word of caution is needed here, however. Don't confuse architectural supervision with the duties of a "clerk of the works." The two functions are entirely separate. Don't expect the architect to accomplish miracles, either. He can only see that the terms of the contract documents are complied with. He cannot (1) get extra work done for you at no cost or (2) magically cause the job to move faster. In most cases, he can only recommend that payments to a contractor be withheld for work not yet done or work improperly done.

2. *Use only methods which are familiar to your local labor.* If you try to erect a stone edifice when local masons are accustomed to working only with brick, you will probably have to import masons — at greatly increased costs.

3. *Don't do anything that requires the use of special or unusual equipment.* If your architect calls for massive earth moving, for the erection of huge steel framing members, etc., he should give thought to the problem how the work will be done and whether it may involve considerable avoidable cost.

4. *Use repetitive framing.* This is modular construction, of a sort, and makes possible the savings that are inherently possible in all such construction — saving of time.

5. *Leave structural members exposed wherever possible.* Some state building codes still do not permit this, even in one-story buildings in which each room has its own door directly to the outside and where there are virtually no combustible materials in the building. School authorities should attempt to have such state or municipal regulations changed unless some question of safety actually exists. Lobbies of some of the building trades will undoubtedly oppose such changes, as they tend to put the interests of the restricted groups for whom they work before the interests of the general taxpaying public.

6. *Use a flat, built-up, bonded roof.* Not only is this kind of roof less costly than some other kinds, but you can save money on the wall framing, roof framing, and roof deck.

7. *If framing is used, frame and install the roof first, so other work can proceed under shelter.* This development has been possible only in the past few years in much of our North American climate, but it *is* possible now. There have been numerous instances of buildings which were only roofed at the advent of freezing weather, but were then enclosed with some of the relatively inexpensive polyethelene film plastics so that work could proceed. With new developments in space heaters it is possible to carry on all trades in a building so enclosed — including bricklaying and plastering, both of which operations were practically suspended in earlier days with the coming of winter weather.

8. *Start construction immediately after the award of contracts.* The longer the contractors delay, the longer is the period during which you are paying interest on bonds for money which is not being used

[1] See "The Right Architect Can Save You Money," SCHOOL BOARD JOURNAL, July, 1958, pp. 26–28.

(many states *require* that bonds be sold before construction contracts are let).

Subcontractors Co-ordinate

9. *Have all subcontractors responsible to the prime contractors.* Work on any subcontract is much more likely to be properly and promptly done if there is someone who is co-ordinating all branches of the work.

10. *Use construction methods adapted to the use of power tools.* It is almost axiomatic that work done by machine is less expensive than work done by hand, but many architects continue to call for hand dug footings, custom millwork, field welding, etc., which can be done at least as well by machine or preassembly.

11. *Don't use walls which have to be furred.* Usually, adequate ventilation and/or different methods of construction can make furring of walls unnecessary. Exposed masonry with a painted finish is almost universally acceptable today, and can be quite satisfactory if properly done.

12. *Make window framing an integral part of structural framing.* Not only does it reduce labor and material costs, but it eliminates many cracks which are potential sources of drafts and water leaks.

13. *Eliminate or reduce the work of high-cost trades (for example — plasterers and masons).*

14. *Don't involve any more subcontractors than absolutely necessary.* Cases have been known where a sub-contractor let work to a sub-sub-contractor who let work to a sub-sub-sub-contractor — and you may be sure each was making a profit. The more contractors there are involved, the more persons there are who must make a profit and the harder it is to secure prompt and proper compliance with the contract documents.

15. *Use skeleton framing.* This is probably one of the most controversial suggestions offered for reducing costs. For every person who is sure this saved money in a given instance there is another person who is just as sure that bearing walls saved money somewhere else.

16. *Use few crafts or trades.* Everything said in regard to *Suggestion* 14 is true here, also.

17. *Use as much prefabrication as possible.* See *Suggestion* 10.

Time Costs Money

18. *Make it possible to erect the building quickly.* Opinion varies as to what "speedy" erection is, and of course time is proportional to the size of the job. Of 29 persons who said that "speedy erection" made possible a substantial savings on their construction, the erection times indicated were as follows:

Months	*Responses*	*Months*	*Responses*
3	1	11	3
5	1	12	3
6	4	13	2
7	1	14	3
8	1	17	1
9	6	18	1
10	1	24	1

19. *Employ a "clerk of the works" to supplement, not replace, the architect's supervision.* He can often save more than the cost of his salary in pilferage of materials or in extra-cost claims.

20. *Consult contractors and workmen for ways to simplify the work while it is in progress.* Most contractors are honest enough to pass any savings along to the board and many know how to effect such savings and are waiting only to be asked. They will rarely volunteer such information, though, for fear of offending the architect.

21. *Use cavity-type exterior walls.* They don't require as much masonry or labor as solid walls, are just as safe as solid walls, and provide better insulation.

22. *Bolt roof purlins instead of welding.* Welding is a high-cost trade and bolting can save many hours of such expensive welding work.

New Materials

23. *Use dry-wall construction (other than block) for interior walls.* There are many types of materials and apparently some communities are finding them quite satisfactory. Perhaps their use is in keeping with our present theory that probably school buildings need not be constructed of completely time-defying materials, as they are usually educationally obsolete after 20 or 30 years.

24. *Use residential type construction.* See *Suggestion* 23.

25. *Use "tilt-up slab" techniques.* Although relatively new and not generally used, they seem to offer opportunities for savings, at least in some communities.

26. *Use "lift slab" techniques.* See *Suggestion* 25. ■

Sources of School Building Economy

Dr. Boles' series of eight articles offers a comprehensive inventory of ways to obtain as much school building as possible from construction funds. The basic suggestions for school construction economy were analyzed by a corps of school plant experts for true economy — economy that lowers costs without diminishing educational values of the building — then rated for *proved worth* by recognized builders of 86 "low-cost" schools in 34 states.

This installment considers how certain construction methods might contribute to lowering school construction expenditures. Other articles in the series:

1. What the Administration Can Do to Reduce School Building Costs (May, 1958, SCHOOL BOARD JOURNAL, pp. 52–54)

2. Proper Educational Planning Can Help Reduce School Plant Costs (June, pp. 39–40)

3. The Right Architect Can Save You Money (July, pp. 26–28)

4. How to Save Money on Sites and Site Development (August, pp. 21–22)

5. Equipment Is Important to Economy (September, pp. 49–50)

7. Materials Used Can Vary Costs

8. Insist on Economical Engineering, Too

(When the series is concluded, reprints will be made available at minimum cost.)

Lake Orion Community High School

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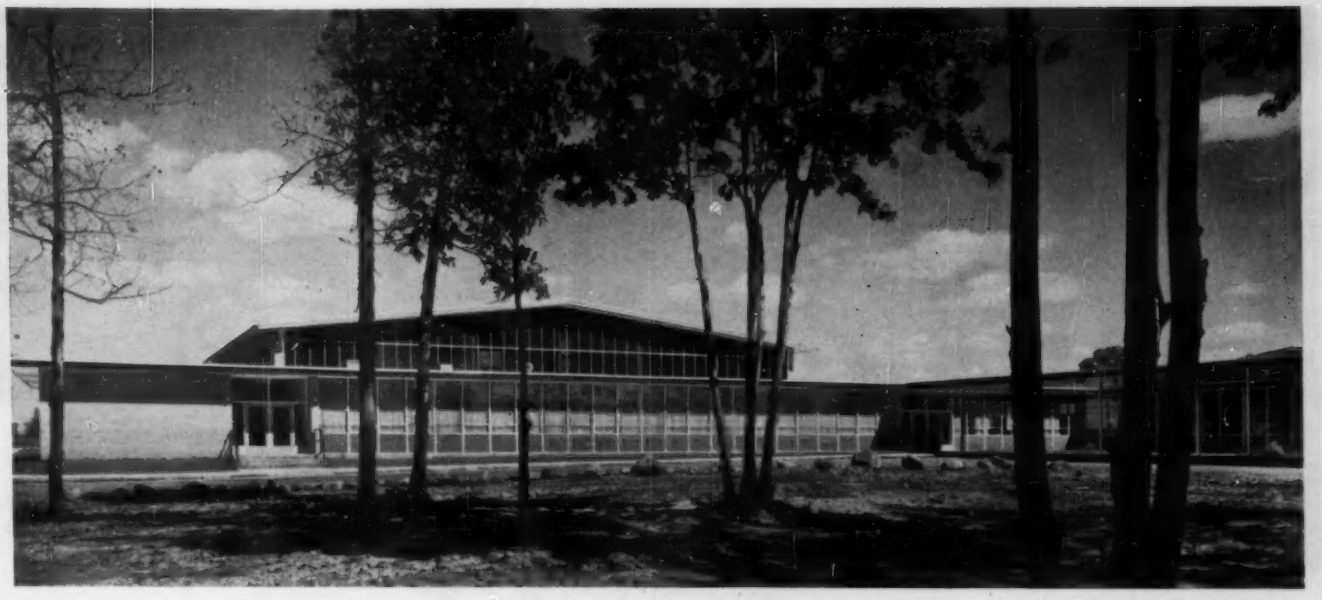
Several views of the exterior of the Lake Orion, Michigan, high school, illustrating the modified "finger plan" of the school, its excellent orientation to a rustic site, and its contemporary, brick and porcelain design. Architect was Eberle M. Smith Associates, Inc., Detroit. Superintendent at Lake Orion is A. A. Reed.

A well-designed school building is more than a shelter for its students. It is an important educational tool. The kind of architecture that surrounds students' activities has a direct effect on the success of an educational program. To achieve the ideal architectural environment requires the co-operation of many planners: board members, administrators, faculty, citizens, and architects.

The first task in any planning process is to define goals. To achieve the building they wanted the Lake Orion High School planners set as their goals such physical attributes as: (1) ease of communication, (2) efficient traffic flow, (3) economy of operation, (4) good lighting, (5) satisfactory auditory levels, (6) pleasant visual qualities, (7) ease of expansion, and (8) effective use of all space.

Ease of Communication

It was decided that for most efficient communication and co-operation between faculty, that the areas should be grouped departmentally. Thus, there are two academic classroom wings and between them is the library, which is the resource center for academic learning. Grouped around the library are conference rooms, audio-visual aids room, and publications room. There is a separate classroom wing for the work-centered classes such as homemaking, arts and crafts, wood and metal shops, and drafting. Other departmental groupings include music, chorus, and speech in one area, and physical education in another. The office areas are also grouped for close co-operation administratively.



Efficient Servicing

Those areas requiring deliveries of merchandise, such as shop areas, are located adjacent to service drives. The main receiving room handles all deliveries of supplies, including foodstuffs, which move directly through the receiving room to the adjacent kitchen. In a school such as Lake Orion High School, where a very high percentage of students arrive and depart by bus, it is a great convenience to have a sheltered bus unloading canopy; to accommodate visitors to the school it is desirable to have both prinicipal's and superintendent's offices adjacent to main entries. Another aspect of pedestrian traffic handling was the arrangement of physical education facilities so that students can move directly to the out-of-doors without disturbing other classes.

Economy of Operation

In every aspect of architectural, mechanical, and electrical design the question of cost, including maintenance, was a prime consideration. The building is largely composed of steel structural framing, steel roof panels, aluminum sash, and brick masonry panels, all selected for durability. There is extensive use of porcelainized insulated metal sash panels that require no upkeep. Most classroom areas are provided with unit ventilators that permit individual control of heat and air circulation within each room, thus avoiding any wasted fuel.

Good Lighting

Realizing that the comfort and health of the student depends a great deal on his lighting environment, the problems of quality illumination were given thorough consideration. The great majority of the classrooms are oriented to the north or south with the windows sheltered by an overhang. These orientations are considered the most desirable for classrooms, rather than east or west exposures where early or late sun penetrates too deeply into the rooms. The few classrooms oriented toward the west are sheltered by the 10′–0″ covered walkway. The major corridors are brightened by extensive use of glass "borrowed-light" frames above locker height. Throughout the school the finest types of fluorescent fixtures are used to achieve abundant, glare-free artificial light.

Satisfactory Auditory Levels

In most areas of the new school building the sound is controlled by the use of perforated steel deck panels. Inside the perforated deck are insulation batts to absorb noise. Equally important in acoustic control are the basic plan arrangement that separates areas of high noise level from other parts of the building. Thus, such rooms as woodshop, metal shop, band, chorus, gymnasium, and cafeteria are located in such a way that sound does not disturb adjacent study areas.

Pleasant Visual Qualities

Basic to the philosophy of the planners was the belief that an attractive physical environment can be a real enhancement to the learning process. Not only was the stepped floor plan, with the three classroom wings on an upper level, an economical solution to the problem of a hilly site, but it was felt that visually this helped to enhance the natural contours of the terrain. It was also desired to retain as many of the trees as possible on the pleasant woodsy site. To create attractive views from within the school two landscaped garden courts have been introduced into the plan on either side of the library. It is hoped that some additional landscaping can be done within the classroom courts when funds become available. Within the school an attempt has been made to keep the colors and finishes cheerful and warm in character. The extensive use of glass is intended to give a feeling of spaciousness and brightness to the building.

Ease of Expansion

With school enrollments ever on the increase, it behooves all school planners to keep an eye to future requirements. One of the most important attributes of the Lake Orion high school plan is that it can be expanded in several directions as the need arises. To the east can be added two or three new classroom wings. Space has been left for a possible future auditorium at the front of the site where it would be close to the present music and speech rooms and convenient for public access. In the layout of the locker rooms and showers, thought has been given to their relationship to a possible future swimming pool. In the design of mechanical services to all parts of the building the planners tried to keep the future in mind so that any additions can be built in the simplest and most economical way.

At the left is a view of a typical classroom of the 12 general instructional stations in Lake Orion. Above, the library is long and narrow and affords excellent bi-lateral natural lighting and low-glare, high level artificial lighting. Above, at the right,

Effective Use of All Space

In nearly every part of the building there is multi-use of space, so that the school building is fully utilized throughout the day. For example, the gymnasium is divisible by a rolling door so that boys' and girls' classes can operate simultaneously. The cafeteria serves equally well as a study hall by simply closing off the food service lines, and it will also be much used for meetings and dances. The physics-chemistry room utilizes an arrangement of peninsular work tables so that the room may serve for lecture, as well as laboratory space. In the homemaking quarters, the space is so arranged that students can move easily from cooking to sewing activities as in a home environment, but in case of crowding it is a simple matter for two classes to operate simultaneously within the space.

The planners of Lake Orion Community high school held as their aim the concept of providing students the best possible educational climate during these important developmental teenage years. The intention was to create a building that not only functioned well, but had an architectural character that was attractive and inviting. It is hoped that these efforts have met with success and that each student will find within these walls a happy and worthwhile educational experience. ■

1. Classrooms
2. Arts & crafts
3. Clothing
4. Homemaking
5. Food lab
6. Metal shop
7. Project storage
8. Material storage
9. Shop planning
10. Wood shop
11. Drafting
12. Boiler
13. Receiving
14. Kitchen
15. Cafeteria
16. Lobby
17. Library
18. Speech
19. Stage
20. Vocal
21. Band
22. Girl's lockers
23. Boy's lockers
24. Gymnasium
25. General office
26. Offices
27. Health
28. Conference
29. Superintendent
30. Superintendent's general office

is a view of a typical science room at Lake Orion, the chemistry-physics combination lecture room-work space, one of three science rooms in the school where students can combine instruction and experimentation. At the far right, the typical corridor has lockers lining both walls and provision for classroom bilateral lighting with glass panels.

The wood shop of the Lake Orion high school, one of three industrial-arts areas of the school. A "power mechanics" shop and a drafting room complete the school's facilities.

Left: The cafeterial which seats 300 a shift. Above: The gymnasium which has accommodations for 1200.

a survey of basic data on planning the high school gymnasium with standards for facilities, hints on selecting flooring, and guides to equipment buying

what you should know about —

Planning the High School

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U. S. Office of Education

1. Basic Data for the Planner

The high school gymnasium is the workshop for physical education. Planners and designers should, therefore, keep in mind that it is largely a facility for school use. However, in many communities it is often used for ballroom and square dancing, roller skating, and other types of social and recreational activities requiring large floor spaces. It is also used for large public meetings, sometimes for school graduations, and other school meetings of special interest to the public.

1. Requirements

To determine indoor requirements of the school and community for physical education, athletics, and recreation, planners must analyze the school and community programs today as well as the foreseeable future. There is need for co-operative effort involving school board members and administrators and teachers, lay citizens, city or county officials, contractors, and architects in the preparation of educational specifications for the gymnasium. Planners of high school gymnasiums should not only know and study programs of activities to be carried on but should

survey the community to find out what facilities, if any, are already available for physical education, athletics, and recreation.

The major purpose of physical education is to promote the health and physical development of pupils as they participate in well-selected physical activities. In addition to physical skills, it also assists each boy and girl to develop socially useful practices and enjoyment of wholesome physical recreation. A well-balanced program in physical education for secondary schools includes: (1) instruction, (2) recreation, (3) intramural sports, and (4) interscholastic athletics and other forms of skilled participation, e.g., dance groups, gymkana, demonstration teams.

The secondary school program in physical education in gymnasiums includes a variety of activities, engaging pupils in both large- and small-group team games, such as basketball, volleyball, handball, badminton, shuffleboard, and bowling. Other types of activities carried on in the gymnasium include stunts, tumbling, gymnastics, rhythms and dances, conditioning exercises, wrestling, and adapted physical education.

Intramurals include participation in sports and games between units within the school. Such voluntary activities may be carried on during or after regular school hours, offering the opportunity to use the skills, attitudes, and understandings developed through the instructional phase of physical education. Many intramural contests in basketball and other activities mentioned above are carried on in high school gymnasiums.

Interscholastic athletics, or contests between schools in sports such as basketball and volleyball, are also carried on in the gymnasium. In some schools interscholastic athletics is largely for boys. However, in many areas girls in a limited way also participate in such activities. The athletic program in many communities attracts large crowds of people, especially at basketball games, requiring seating facilities for the spectators.

2. Location

The high school gymnasium, since it is used daily by pupils, should be located conveniently for them. And since it is used in most communities by the public, it should also be convenient for use by young people and adults after school hours. It should be an integral part of the main building located on the ground floor, away from quieter areas so as not to cause interference. In some high school plants a separate wing or building is provided for the gymnasium. Where it is a separate building, it is usually connected with the main classroom building by a covered walkway or an enclosed corridor.

3. Instructional Uses

Since the gymnasium is principally for physical education, it should be planned largely as an instructional facility. A functionally planned gymnasium may accommodate more than one class at the same period. In fact, some gymnasiums have several teaching stations,[1] with each station located so as to permit coeducational activities and so that it is convenient to appropriate service units. The main floor may be divided into two or more teaching-stations, accommodating several groups at the same period. Other teaching-stations may be in attached auxiliary gymnasiums with lower ceiling, in swimming pools, playrooms, and rhythm rooms.

In order to determine the number of teaching-stations required, it is necessary to establish the number of pupils for whom the building is to be planned. It is important, therefore, to consider present and anticipated future enrollments, because it is very difficult to expand physical education facilities after they are constructed. The number of teaching-stations is also dependent on the policies of the school. For example, some schools require all pupils to participate every day in physical education. This may include pupils with physical handicaps or other conditions which require an adapted program.

The size of classes and the number of periods in physical education vary in different schools. To determine the number of teaching-stations required, physical education specialists[2] propose the following formula:

$$\frac{\text{No. of pupils enrolled in subject} \times \text{No. of periods per week in subject}}{\text{Desired average class size} \times \text{No. of periods per week each teaching-station can be used}}$$

The class sizes in physical education also vary, but the recommended average size is similar to that of other classes in the school. In some high schools an average enrollment of about 35 pupils per teacher per period is the goal (or desired standard).

Policies with respect to the requirements in number of years pupils must participate or the number of periods per week vary. Many educators believe that physical education should be required daily for all pupils throughout the secondary grades.

The gymnasium should include a large open-space floor, some spectator seating, classrooms, and auxiliary spaces and facilities. High school gymnasiums usually need a basis (or minimum) area equal to 76 by 96 feet for interschool athletic games. This space will accom-

[1]The term "teaching-station" as applied to the gymnasium means any room or space where one person can teach one class or group of pupils.

[2]The Athletic Institute, *Planning Facilities for Health, Physical Education and Recreation*, The Institute, 209 S. State St., Chicago, Ill., 1956.

Gymnasium

modate folding bleachers for spectators, and the playing area can be divided, by folding doors or nets, into two 48 by 76 feet physical education teaching-stations. The size, of course, should be determined by the program in each community. Where large crowds are expected and it is the only facility in the community for interschool athletics, bleacher space may need to be much larger. However, if match games are played in a community gymnasium accommodating large crowds, seating space in the high school gym could be very small. It seems advisable, however, to play school games in the school plant, if possible. Extra teaching-stations needed in the gymnasium should be determined by the program after consultation with the high school principal and teachers.

4. Ceiling Height

The ceiling heights will vary with the program to be accommodated, the size of the room, and the design of the building. The National Council on Schoolhouse Construction[3] recommends the following heights for main gymnasiums: junior high schools, 18 to 20 feet and senior high schools, 20 to 22 feet. Auxiliary gymnasium ceilings may be lower, 14 to 16 feet.

[3]National Council on Schoolhouse Construction. *Secondary School Plant Planning.* The Council, George Peabody College for Teachers, Nashville, Tenn., 1957.

5. Dividers and Bleachers

Dividers of gymnasium floors to create two teaching-stations may be screens or movable or folding partitions. They may be powered with a motor and might well be insulated against sound transmission. A pass door should be provided in the partition.

Modern folding type bleachers make possible efficient utilization of floor space for instruction and recreation areas. The use of folding bleachers eliminates any necessity for sacrificing the requirements of the pupils, the content of the program, or participation by community groups. The cost of providing seating seldom used to capacity should be given careful consideration before being included in the gymnasium specifications.

6. Office Space and Foyers

Office space should be provided for physical education teachers. Such space should include a lavatory and toilet and shower facilities wherever possible. A space should be provided in the gymnasium for serving light refreshments. It should be easily accessible by the spectators and to the recreation units. Serving space should be large enough to accommodate the peak-sized crowds attending athletic games and other public events. It may also be used in serving refreshments at social functions in the building.

A Checklist of Service Facilities

Before completing educational specifications for your gymnasium be sure that you have:

Provided adequate locker and dressing space

Planned the dressing and shower areas to reduce foot traffic to a minimum and establish clean, dry aisles for bare feet

Provided a nonskid surface on dressing, shower, and toweling room floors

Properly related teaching-stations with service facilities

Provided doorways, hallways, and ramps so that equipment may be moved easily

Provided mirrors and shelving for boys' and girls' dressing facilities.

Trends in Planning the High School Gymnasium —

One of the more commonly-accepted practices of today's gymnasium planners is the trend toward multi-use of the room. Examples of this: left, below — a combination gymnasium and auditorium at the Lynnwood, Wash., Junior high school; right, below — a combination gynmasium and music room with folding doors in the Kewanee, Ill., school.

Foyers are important in gymnasiums to serve as entrance space and to guide spectators to seats. They should include adequate toilets for men and women, ticket-sales windows, cloakrooms, public telephones, and lockable display cases. Where funds will permit, the foyer might well be made attractive through the use of special building materials, colors, and lighting.

7. Lighting

There should be adequate natural lighting, well distributed and controlled. Windows should be as much as 12 feet above the floor and arranged so that pupils shooting goals in the daytime will not be facing the glare of windows. The amount of light in a gymnasium should not be restricted, if it does not interfere with the activities. Some provision should be made for shading windows on the sunny side. Attention should be given to high-brightness areas. Windows located where they may be broken by balls should have a heavy wire guard installed to protect the glass.

Sufficient nonglare type artificial lighting should be provided and designed to eliminate shadows. A minimum of 20 foot-candles should be maintained. Provision should be made for dimming lights when the gymnasium is used for social and certain recreational functions. Protective devices on lights should be used where necessary.

The selection of colors for the gymnasium is very important. Colors vary under daylight and with different types of artificial light. Efforts should be made in the selection of colors to provide cheerfulness and harmony.

8. Acoustics

Full attention should be given to proper acoustical control for teaching and for activities which require sound systems, e.g., square dancing and physical education. Noise transmission should be kept to a minimum because activities often become boisterous, and in certain contests almost deafening. This is necessary to protect pupils and teachers in classrooms and spectators at contests in the gymnasium. The gymnasium needs an environment with a somewhat critical reverberation control, so that there will be good speaking conditions.

9. Heating and Ventilating

The selection of the type of heating and ventilating system for the gymnasium should be made with special consideration for economy of operation and for capacity to provide desirable thermal and atmospheric conditions. Controls should also make it possible to heat or cool the gymnasium without heating the whole plant. Cooling the gymnasium is as important as heating, and much consideration needs to be given to use of the gym during summer. The trend toward year-round use of school facilities increases the importance of this problem. The design should make provision for future expansion. Special consideration should be given to variable controls to supply the proper amount of fresh air and total circulation for minimum and maximum occupancies.

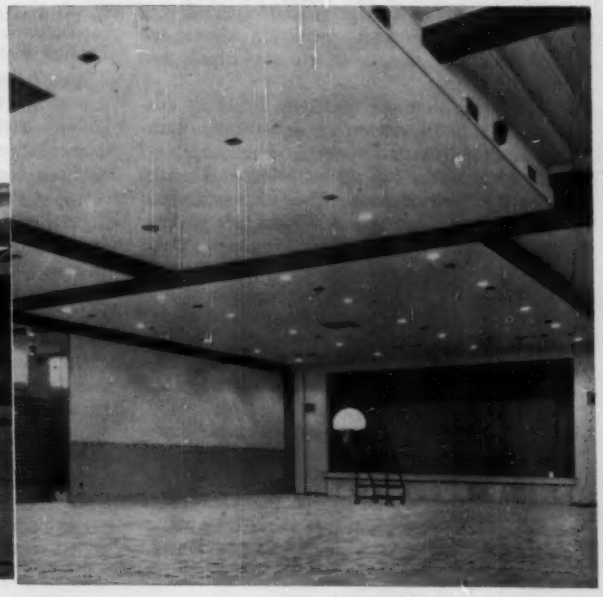
10. Plumbing

All plumbing should meet the requirements of local codes. Well-arranged sanitary facilities are essential for comfort and convenience and for promoting desirable health habits. Advice from local sanitarians should be secured on the water supply. Appropriately located toilets should be provided: (1) near points of entrance, (2) convenient to play grounds, (3) in each locker and dressing room, and (4) in offices.

The toilet room facilities will vary, depending on the scope of the local program, the type of facility, the seating capacity, and the general location within the plant. Sufficient toilet facilities should be provided for spectators so as not to make it necessary for them to us pupils' dressing rooms.

Drinking fountains should be provided: (1) in the lobby, (2) at each end of the gymnasium playrooms, and (3) in each locker and dressing room. The fountain should be the type to prevent the mouth from touching the nozzle and to prevent water from falling on the floor.

The clever use of a balcony which doubles for seating and for a small gymnasium and gymnastic area is illustrated at the left; the school is the Missoula, Mont., community high school. At right, portable backstops and movable partitions increase the flexibility and multi-use features of the gymnasium in the Parkview high school, Springfield, Mo. Also shown is the removable basketball backstop.



Lavatories with hot water should be provided in each toilet room and locker and dressing rooms. Water closets made of vitreous china should be the elongated-bowl type with impervious open-type seats. Urinals with hand-flushing devices should be located in men's toilet rooms. The floor type, flush with the floor, should be pitched to drain toward the urinals. The lip, wall-hung type should not exceed 15 inches from the floor in junior high schools and 18 inches for senior high school age pupils.

Shower rooms should be separated from dressing rooms by a drip passage, toweling area, and/or a body-drying room. Shower rooms with shower heads on both walls should be at least 9 feet, 6 inches wide and with heads on one wall, 6 feet, 6 inches. Shower heads for girls should be 4 feet, 6 inches, and for boys, 5 feet, 6 inches. Hot water to shower heads should not exceed 120° F. Faucets for lavatories should deliver both hot and cold water through one spout. Floors should be of nonslip ceramic tile or quarry tile, sloped toward the drain. Wainscot should extend 7 feet exactly and be of quarry tile, ceramic, or structural, glazed tile.

11. Storage

Dressing rooms should provide storage for gymnasium clothing for all pupils and dressing lockers for peak period load of physical education classes. These may be modified as to size, type, and program. They should be well ventilated and accessible to the shower rooms. Since dressing rooms are used in many school gymnasiums during summer vacations and on weekends by adult groups, provision should be made for storage of their clothing and equipment.

Well-planned quarters for the custodial staff encourage systematic management, and routine, efficient, and economical use of supplies and tools, and, most important, a high standard of workmanship. Custodians' closets, near or in the gymnasium, should be large enough to accommodate such equipment as stepladders of maximum size. At least one fire-resistive closet should be provided for each 7500 to 10,000 sq. ft. of floor area. A custodial sink should be in the closet or nearby, with hot and cold water.

Central vacuum systems have been found useful in large gymnasiums. Portable vacuum cleaners may also be used. To be able to clean toilets and dressing rooms, there should be base connections, with hot and cold water. ■

2. Installing and Maintaining Wood Floors

WALTER S. HILLYARD
Hillyard Company, St. Joseph, Mo.

The modern gymnasium or fieldhouse frequently serves both as an instructional area for a school's physical education and athletic program, and as a community recreation center where many types of sports and extracurricular activities are enjoyed by groups of all ages.

Since the completely equipped gym represents a considerable investment (and bond issues are meeting increased resistance), the fact that a variety of uses — large banquets, dances, automobile shows, music festivals, roller skating, etc. — can be made of the gym in community activities can be a strong selling point for inclusion of adequate gym facilities in your new school program.

The advent of scientific floor installation and of modern-day floor finishes permits the planner to consider a full range of community activities and still be certain that a good playing basketball floor can be maintained.

Proper Installation

As proper installation is the first and one of the most important phases in providing a well-wearing, continually attractive floor, the gym planner should be aware of the steps involved.

Any fill necessary or air space to allow for the ventilation beneath the floor should be taken into consideration in your planning with the architect or contractor. The base, subfloor, and the floor itself must be laid according to the latest recommended methods following, without substitution the specifications of your architect and/or the specifications of the Maple Flooring Manufacturers' Association.

In laying the gymnasium floor experienced contractors will advise that a floor installation should not be rushed. The wood to be used for the floor, for instance, should be stored in the building preferably 30 days before laying, in order that the moisture content can be equalized and the wood become more adjusted to the existing climatic conditions.

The floor must be laid with care to allow for inevitable contraction and expansion. A gymnasium floor will expand three to five inches in over-all width. On an average-sized floor provision for this expansion and contraction must be made to prevent cupping and warping or actual heaving of the floor. The gym floor should never be tied to the wall or concrete base — it should remain in the "floating" position to accommodate contraction and expansion.

Proper Finishing

Installation of the gym floor also involves the finishing operations of sanding, priming, sealing, etc. These steps must also be correctly accomplished to allow full use of the gym for the already mentioned range of school and community events. It is recommended that the floor after laying not be sanded for at least 30 days. This permits the floor to seat itself and adjust properly so that after the final sanding any small cupping problem can be sanded out.

These steps are:

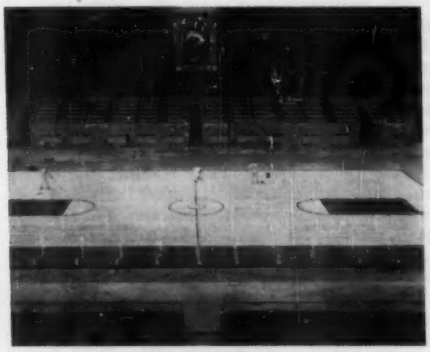
1. The first step in finishing after the new floor has been installed is to sand it. The smoothness of the finished floor depends mainly upon the care given this operation. Varying grades of sandpaper, from rough to finer ("0" or "00"), will be used in succession. The first, and sometimes the second cut as well, are usually at a 45-degree angle to the direction in which the floor is laid — so that a smooth surface free from ridges and valleys will be assured. All succeeding cuts are made parallel with the grain of the wood to remove any cut marks.

This final sanding is probably as important as any other factor to smooth the final floor. A poor sanding job cannot be covered up. Sand grooves or scratches which were barely noticeable will be magnified by the clear gym finish to appear as

Important steps in finishing the gymnasium floor —

1. Sweeping after sanding will eliminate "dust pimples" that would mar the perfect floor finish.

2. The seal should be applied generously so that it fills the voids and canals in the grain of the wood.



3. The final finishing, as shown in the Louisville State Fair Exposition Center above, requires that small areas of the floor be worked.

rough as a plowed field. After the final sanding, at least within 24 hours, the floor must have a coat of seal to protect it against moisture, dirt, dust. This is a must! No traffic is to be allowed after final sanding and before first seal coat. Lock off or rope off gym.

2. Sweeping after sanding is an important step to obtain a smooth floor finish with perfect bonding free from dust pimples. With a clean bristle brush sweep with the grain of the wood; vigilance must be exerted not to press too hard or the bristles will kick up dust and wood flour into the air. The floor must be gone over several times until all dust and wood flour are able to be picked up. Sometimes a vacuum cleaner with clean wheels and electric cord will aid this cleaning process.

3. The new floor must then be carefully inspected. It must be completely smooth with no ridges or rough spots, no marks or scratches.

4. After all dust has been removed, a turkish towel is dampened with a high-flash point solvent and put over a hair brush to wipe the floor. This treatment should remove the last minute traces of dust and wood flour, leaving the floor absolutely clean and dust-free with the pores open and the wood cell structure ready for primer and sealer.

5. The seal should be poured from its original container into a flat shallow pan — one large enough that a clean lamb's-wool applicator can be dipped into it. The seal should be applied generously and worked into the wood, first across the grain, then with the grain, allowing the wood as much seal as it will absorb. The seal fills the voids and canals, strengthening the cellular structure, preventing moisture from getting into the pores, and forming a smooth base for the finish coat.

6. When the first coat of the seal has dried, or in about 12 hours, a No. 2 steel wool is used under a heavy scrubbing machine to restore the bone-smooth surface of the floor by cutting off the wood fibers that have been raised during the application of the finish coat. Remove all traces of steel wool and wood fibers by sweeping with a dampened turkish towel.

7. After the first coat of seal, the markings for the basketball court and game areas should be painted on the floor. Remove any dust or foreign matter by sweeping again.

8. Another coat of seal is then applied and the floor is steel wooled. If dry spots appear on the floor, repeat seal application and the steel wool operation.

9. After removing all particles of steel wool dust, dirt, and wood fibers with sweeping, vacuuming, and cleaning with solvent, a first-quality, self-leveling finish, should be applied. Great care must be exerted to avoid overlap marks by picking out a small area (5½ square feet) for working. Apply with the grain only. Since the finish sets rapidly, several men should work as a team to cover an area before the finish sets and overlapping results.

Proper Maintenance

Now that the gym floor is ready for the abuse that daily use as a classroom for the modern physical education program and as a hall for the variety of community activities impose, vigilance must be extended to retain the fine appearance of the floor. The well-laid, top-quality floor represents a substantial investment; a sensible maintenance program will protect this investment and provide many years of satisfying use.

After the floor has been finished, it is time to begin the maintenance program.

The floor should have at least three days to cure, preferably ten, before it is used. Before use, the floor should be "fogged" (sprayed with a nonoily floor dressing) at least once or even twice, if possible. A hand sprayer or shoulder sprayer can be used to shoot the spray out and let it settle on the floor.

For daily maintenance treat a 36 or 48 in. yarn wick sweeping brush with the same nonoily floor dressing. This brush is treated with the floor dressing approximately 12 to 18 hours before using to enable the dressing to saturate the yarn strands evenly. The yarn brush is treated daily after sweeping in order that it will be ready for use the next day.

The floor should be swept with the grain of the wood without lifting the brush until the starting point is reached after going over the floor twice. Then the brush is knocked against the wall to separate the particles that have been picked up. These round trips must be repeated until the floor is covered.

It's a safe rule that your floor cannot be swept too often, so make sure your floor is swept before every use. In this way dust particles, that are tiny grits, will be removed. Under the rolling action of shoe soles, these grits act as an abrasive and grind away your finish and then your floor itself.

Don't Baby Your Floor!

Your gym floor does *not* have to be babied. Use it for fun and entertainment, as it was intended. However, be sure that special maintenance precautions for special events are employed.

For a dance, as an example, have sawdust treated with nonoily mop dressing at a ratio of one pint dressing to each gallon of sawdust sprinkled lightly on your floor before the dance.

Schools which use finish with a high abrasion index, can hold skating events on their floors. For the abrasion index of available finishes, check with the Maple Flooring Manufacturers Association.

Today's completely equipped gym represents quite an investment for a community and much creative thinking should be given in its planning so that full utility is gained on an over-all community level. ■

3. Your Guide to Equipment

Bleachers

The introduction of folding or telescoping school gymnasium seating, as contrasted with fixed or demountable seating, meant that the gym planner could provide plenty of seating for popular events and yet could provide full use of the floor area when the seats were folded back easily and quickly into a few feet of floor space.

This flexibility, however, did not eliminate the common mistakes planners make in laying out their gym seating: inadequate future capacity, blind spots, odd lengths, and lack of spectator comfort and safety.

Basic questions regarding bleachers that must be answered include:

1. *How much?* One recommendation states that for high school gyms where spectators will be present for basketball games, as well as for gymnastic exhibitions, wrestling matches, etc., the provision of a total number of seats equal to approximately one and one half the times the enrollment of the school should be satisfactory. In some communities where inter-school or inter-city basketball contests are unusually popular, this proportion might be increased.

2. *Where located?* Typically, movable bleachers are located on one or both long sides of the main playing court of the gym. Place partitions, structural members, heating ducts, etc., so that they do not obstruct the straight-wall areas where banks of gym seats are to be installed. Also, the location of doors, windows, storage areas, heating and ventilating units, etc., could reduce the effectiveness of your seating placement.

3. *What size?* All school plant experts recommend use of "standard" lengths in gymstands. Odd size in bleachers will increase costs just as odd sizes in any large equipment items will.

4. *How safe?* Your bleachers should conform to all applicable federal, state, and local safety codes for seating.

5. *How comfortable?* Manufacturers have standardized their bleachers to a great degree such dimensions as rise-per-row, square inch of seating, etc., for the comfort of the spectators. A compromise in such dimensions must be made, of course, for variations in height of the younger students and average adults who will use the seating. Variations include: 22 to 24 inches of space for each extended row; 16 to 18 inches from foot to seat board of the next higher row and 8 to 12 inches from seat board to seat board, an approximate seat space of three square feet, etc. The gym planners must visualize sight lines and seating height and space to determine a compromise in comfort for all potential users of the bleachers.

6. *How easy to operate?* Ease of operation in movable bleachers must provide for easy opening and closing with a minimum of jamming.

Since folding bleachers have meant a substantial reduction in the needed square feet and, therefore, cost of the high school gym, attempts to price cuts may further result in a reduction of quality and in unsatisfactory bleachers. Buying for price in folding bleachers should be done with extreme caution — certainly after satisfactory answers to the above questions have been determined.

Dividers

Another item of equipment that has aided the planner to achieve flexibility in use of his gymnasium and, therefore, to achieve greater economy is the gym folding partition.

Schools which will frequently require two or more instructional areas can use a standard-sized high school basketball court and divide this single large court into two or four courts for simultaneous use of the room for boys' and girls' classes or for use as several teaching stations by one or two dividers.

These partitions are generally classified as coil or accordion types. The first uses a flexible partition which is drawn and coiled into a retaining box at one or both sides of the floor; the second, which is used quite extensively, is composed of hinged sections that are drawn to one or both sides and folded into a housing unit in or against the wall or walls.

The type and style of divider chosen depends, as with the bleachers upon many factors including the problems of support, storage space, power requisites. In the gymnasium which is intended for frequent double or triple use, a power driven unit that is simple in design and easy to use is a wise investment. The space available for storage must also be considered when choosing the divider. The more elaborate the system, the more space, obviously, will be needed; manufacturers usually have formulas to compute storage for each of their units.

The dividers now available to the school builders represent a great variety; some have doors, some can close off balconies, some are soundproof. Advice from reputable manufacturers will be especially valuable in this area of gym equipment.

Backboards

Fixed, retractable, or portable: three types of backstops are available to the gym planner to aid him in achieving further flexibility.

For the main basketball court two fixed stops and hoops and nets are usually employed; for the two or four smaller courts, retractable boards are frequently used, because the area behind these courts is frequently devoted to telescoping bleachers and the backstops by retraction will not mar the spectator's view. They can be lowered, of course, providing boards for practice, intra-mural games, classes, etc.

The use of the portable backstop is ideal for the gym-auditorium combination in which a stage may be located at one end of the room and where even a retracted stop may hamper visibility when the room is used for plays, meetings, lectures, etc.

The dimensions and materials of backboards have become largely standardized through prescriptions in many areas of the country by area coaches' associations or high school athletic conferences. All designs, however, should be solid and steady. The planner should also make certain that if ceiling attachments for the backboards are necessary they should be included during early construction phases. The unit, therefore, must be selected and proper attachments ordered before the gym ceiling is completed.

Scoreboards

"Viewability" is one of the most important concerns for the school planner when selecting the scoreboard and time clock for the new gymnasium. The score and time numerals, must be large enough to be easily readable at the most remote ends of the gym. The board and clock must also be placed advantageously. One trend is toward a multi-face unit suspended in the middle of the main court.

School plant experts recommend that scoreboards and timers be purchased, like the dividers, from a reputable manufacturer who has the staff capable of servicing the unit.

Play Apparatus

The modern physical education program provides a wide variety of exercises, gymnastic activities, and games. The planner must provide, therefore, appropriate and adequate facilities and equipment for the program's range of activities.

For such indoor sports as volleyball, badminton, handball, softball, table tennis, etc., where balls, bats, racquets, nets, and standards are needed, the prime concern for the planner is storage space.

The apparatus and supply storage room must offer easy access from the gym floor, door openings wide enough to permit moving equipment from the floor into the space with ease, and size large enough to accommodate all movable equipment. The room, experts advise, should be well lighted and should have positive ventilation, should be equipped with cabinets and bins, and should, depending upon the scope of such sports in the program, be approximately 300 square feet in area.

The storage room must also be large enough to accommodate apparatus for exercises and gymnastic activities: trampolines, parallel bars, traveling rings, ropes, horses, bucks, horizontal bars, etc. This is especially true when the main gymnasium is planned for such activities and there will not be a separate gymnastics room.

The planner must be concerned with what exercise and gymnastic equipment

will be used, for many pieces of equipment demand eyelets, hooks, etc., firmly attached to structural members of the ceiling, walls, and floor. Most of the equipment is movable (trampolines, horses, bucks) and much is removable (ropes, traveling rings, flying rings) so that the planner can consider the space used for those activities as usable at other times for other activities.

Of the wide range of equipment needed for the gymnastics areas of the school's Phy. Ed. program, the trampoline is becoming one of the most popular. This versatile piece of apparatus consists mainly of three parts: frame, bed, and suspension system. For high schools, the frame should be folding and, therefore, portable; the bed can be solid or woven web which should be interchangeable on the same size frame; the suspension system, which must also be interchangeable, should be either composed of metal springs or rubber cables. Obviously, from a safety standpoint, all exposed frames should be padded. The equipment's folding qualities are especially important to the gym planner and his concern for its storage ability. As with most gym equipment, the product of a reputable manufacturer with a number of models, who offers expert service for his equipment, is the most economical purchase. ■

Free Aids in Planning Your Gym —

To help you with selecting the right equipment for your gymnasium, reputable manufacturers offer services — planning guides, product catalogs, informative booklets, filmstrips, surveys by representatives, etc. — that are available to you free and without any obligation. To get your copies or demonstrations promptly, circle the key numbers listed below with a description of each service on the "Reader's Service Section" index card on page 89 of your JOURNAL. Detach and mail the addressed, postpaid card and your order will be sent to you.

BLEACHERS

Catalog No. 13-i-1, Berlin Chapman Co., A.I.A. file containing data on construction features, architects specifications, local distributors, etc. (For your free copy, please circle GP-1 on the "Reader's Service Section" index card on page 89 of your JOURNAL.)

Catalog 35-F-11, Hussey Manufacturing Company, Inc., A.I.A. file with construction information, specifications, and regional representatives, etc. (For your free copy, circle GP-2)

Gymnasium Seating Catalog, Fred Medart Products, Inc., featuring guidance on gym seat planning, how to select from various types, explanation of "line-of-sight," etc. (GP-3)

Catalog GS-657, Safway Steel Products, Inc., with information on how to plan for telescoping gym seats, specifications, and details concerning construction, visibility, etc. (GP-4)

Gymnasium Seating Capacity Calculator, Universal Bleacher Company, a guide to estimating your gym seating needs. (GP-5)

Bleacher Catalog, Universal Bleacher Company, including specifications, an outline of information needed for quotations, etc. (GP-6)

DIVIDERS

Catalog No. A-99-R, Richards-Wilcox Manufacturing Company, a 64-page manual of installations and descriptions of a wide variety of folding partitions, specifications, construction and operation details, etc. (GP-7)

Folder No. 201, Richards-Wilcox Manufacturing Company, with architectural specifications and branch offices. (GP-8)

Folder No. 191, Richards-Wilcox Manufacturing Company, has data on aluminum partitions with typical plans. (GP-9)

Demonstration of Installations, Richards-Wilcox Manufacturing Company, area representatives will show installations in their particular territories — without obligation. (GP-10)

BACKBOARDS

Basketball Backstop Catalog, Fred Medart Products, Inc., over 30 pages of information on official rules for equipment and court dimensions, selection chart, answers to extreme building conditions. (GP-11)

PLAY EQUIPMENT

Gymnasium Apparatus Catalog, Fred Medart Products, Inc., a most extensive listing of physical fitness apparatus and corrective therapy equipment available from a single source. (GP-12)

Catalog No. 108, Nissen Trampoline Co., with 16 pages of trampoline model styles, services, and instructional aids available. (GP-13)

12 Lesson Plans for Trampoline, Nissen Trampoline Co. (GP-14)

16mm Sound Film on Trampolining, Nissen Trampoline Co., both black and white and color available for free rental (GP-15)

Equipping New Installations, Nissen Trampoline Co., a guide planning your gym for use and storage of trampoline as part of the physical education program. (GP-16)

SCAFFOLDS

Catalog, Up-Right Scaffolds, descriptions and pictures of how the "stairway" scaffold is formed, works, and is folded to change lights, paint, etc., including a list of sales offices. (GP-17)

Survey, Up-Right Scaffolds, with trained field representatives analyzing your school overhead maintenance problems at no cost or obligation. (GP-18)

FLOOR INSTALLATION AND CARE

Finishing Northern Hard Maple Flooring the MFMA Way, The Maple Flooring Manufacturers Association, with complete instruction. (GP-19)

Please Don't!, Maple Flooring Manufacturers Association suggestions for the installation and care of Northern Hardwood gym flooring. (GP-20)

Controlling Expansion of Hard Maple Floors, Maple Flooring Manufacturers Association. (GP-21)

Photographic Folder, Maple Flooring Manufacturers Association, illustrations of various flooring grades. (GP-22)

How to Treat and Maintain Wood Floors, Hillyard Chemical Co., A.I.A. Folder with complete instructions. (GP-23)

Gym Floor Layout, Hillyard Chemical Co., A.I.A. File with detailed marking instruction for popular indoor and outdoor games — basketball, volley ball, badminton, etc. — with special blueprint court diagrams and hints on layout of the court, how to line the court, painting court lines, plus complete finishing specifications. (GP-24)

You Don't Have to "Baby" Your Gym Floor, Hillyard Chemical Co., one district's use of its gym by the community for many purposes with recommendations for maintenance of the floor for various uses. (GP-25)

NEW BOOKS

A review of a controversial and aggravating new book which deserves the unemotional and critical attention of every board member and school executive. The author, Roger A. Freeman, differs sharply with educators on educational conditions and problems, like other social and political scientists. His interpretations provide an entirely different perspective from the widely disseminated views of educational associations. The book was published by the Institute for Social Research, Washington 5, D. C.

School Needs in the Decade Ahead

Reviewed by Edward A. Fitzpatrick

This is a helpful book for school board members and citizens actively interested in education. All can read profitably the preview and summary: "What Price — Education?" The book itself, dealing with the statistics and projections underlying the financial problems, is necessarily statistical in character and extensively so, and requires great patience in reading. The author announces that this is the first of two books dealing with the financing of public schools and will be followed by a work now in preparation on "The critical problem of revenue raising for the needs, real and assumed of public education during the years ahead."

A Lighthouse in a Fog

Felix Morley of the Institute for Social Science Research under whose auspices the book is published, writes a Foreword which describes the book:

"The reader will find in it a well paying mine of rich material, factually disproving many widely held assumptions and providing the essential cost data, much of it never before assembled, on which any rational policy of public education must eventually be based. The book is indeed a lighthouse amid the emotional fog in which this vital subject is all too customarily obscured." One may properly describe it as a lighthouse in an emotional fog, but one must note that the island on which it is based is a rocky one of false assumptions, "imponderable factors making enrollment projections a hazardous undertaking" (p. 32); widespread beliefs, dubious estimates, and more dubious conclusions.

Are American Schools Adequately Financed?

The content of the book is clearly stated by the author: "The book attempts to evaluate the charge that American schools are inadequately financed. It presents the history of school support, explores the extent and seriousness of the teacher and classroom shortages, examines the adequacy of teachers' salaries. Finally, it projects the financial requirements of the schools to 1970" (p. xxi).

Is Condition of American Schools Deplorable?

The book directly challenges the assumptions and assertions of William G. Carr, of the NEA, the administrator of the Federal Security Agency, and Mr. Beardsley Ruml in their position which is phrased by the Educational Policies Commission of the NEA thus:

> Every major study of the status of American Education tells the same story of neglect. It is a story of crises in Education, of teachers poorly paid and in inadequate numbers, of poor communities struggling to pay mounting school bills, of classroom shortages, of colleges and universities contending with over-enrollment and undersupport of waste of human talent. These problems are not entirely monetary, but lack of money is the major element. . . . at a minimum, expenditures for education should be doubled in a decade (*The Contemporary Challenge to American Education*, Jan. 3, 1958).

Americans Faithfully and Loyally Support Their Schools

To all who join in this position — the U. S. Office of Education, the weekly magazines, the officers of state and national school organization and teachers associations — this book must make to them what is a surprising, and even a shocking reply, for it removes any bases for propaganda, clichés, slogans, "obvious truths" so easily and continuously uttered by them. This is the answer which Roger A. Freeman the author, makes:

> The emerging picture is clear cut and unequivocal. The American people have loyally and faithfully supported their schools. The record of steeply increasing school revenues is nothing short of spectacular and makes no persuasive case for holding insufficient funds responsible for shortcomings in the products of our public school system. Since the turn of the century enrollment has doubled, national income multiplied twenty-five fold, school expenditures multiplied sixty-fold. School funds have increased much more rapidly than the gross national product, national income, personal consumption expenditures or any other economic yardstick (pp. xxi–xxii).

Fresh Point of View on Subjects

This is a very valuable book for school board members, but the strange lack of an index decreases greatly its usefulness. We note here only because we cannot discuss them in detail, the fresh point of view and challenging information and conclusions which are presented in the report on such questions as (1) compulsory education, (2) the year-round school, (3) teachers aides, (4) television in education, (5) junior high schools, (6) the 6-3-3 reorganization plan, (7) attitude of teachers organizations, (8) relative educational values of large and small classes, (9) the pupil-teacher ratio, (10) the size of classrooms and number of pupils using classrooms, (11) "equal pay for equal work for teachers," (12) demand and supply of teachers, (13) new responsibilities and new courses for schools, (14) comparison of American and Russian and European education, (15) the noneducational activities of schools, (16) automatic promotion and social conditioning, (17) merit rating of teachers.

Some of the Conclusions on Major Topics

We have already noted the main conclusion of the report, namely, that the American people are loyally and faithfully supporting their schools — and we shall illustrate later — this is so, in spite of a great deal of misinformation, miscalculations, and wrong assumptions furnished the American people by such agencies as the U. S. Office of Education and the National Educational Association and others repeating a common line. First, we present some of the more important conclusions of the present report.

1. *Problems of Enrollment, Local:* "Out of a total enrollment increase of 12.8 million between 1955 and 1970 almost three fifths — 7.4 million will rest upon the 12 highest per capita income states (and the District of Columbia). The twelve lowest income states will experience an increase of only 675,000 pupils equal to 5 per cent of the national total (p. 44)."

2. *Meeting School Building Needs:* "In summary then, the states are constructing classrooms at a rate which, if maintained over the next twelve years, is adequate. Current shortages are being slowly reduced and, in a few years, should no

longer be substantial by reasonable standards. A number of states will need to accelerate their construction somewhat. Major increases appear to be necessary only in about half a dozen states" (p. 205).

3. *American Schools Better Supported:* "American public schools are better supported than the schools in other culturally and leading countries and keep more children for more years than foreign school systems. . . . But the children learn less in terms of academic achievement, in American schools in twelve years than they do in Russian or other foreign schools in ten" (p. xxii).

4. *Expenditures Keep Doubling:* "Expenditure per pupil in *dollars* of constant value has doubled every twenty years" since 1900 (p. xxii).

5. *Shortages Are Exaggerated:* "Teacher and classroom shortages in our schools have been grossly exaggerated and they are rapidly diminishing" (p. xxii).

6. *Teaching Is More Attractive:* "Teaching does not seem to have lost its attractiveness, as claimed because of low salaries, for: (1) The percentage of college graduates who go into teaching has sharply risen. (2) The number of certificated teachers have increased 5 times faster than the total labor force. (3) The number and proportion of degrees in the teaching force has grown steeply and consistently. (4) More persons are leaving non-school job for teaching than quit teaching to accept private employment" (p. xxiii).

7. *Course Offerings Increase Costs and Affect Standards.* "The proliferation of course offerings in a bewildering variety of subjects and the assumption of noneducational responsibilities by the schools probably is responsible for the employment of more than a hundred thousand additional teachers" (p. xxiv). This is made more specific in its relation to standards in this quotation: "The introduction of courses in marriage and family relations, child development, grooming, junior homemaking for boys, teen-age problems, beauty care, date behavior, consumer buying, stage craft, square dancing, pep club, and fly casting, without an increase in the number of classroom hours, resulted in less time being spent on solid subject matter learning. Pupils took the new courses, not *in addition* to the fundamental subjects but *instead of them*. Mathematics became an optional subject through four years of high school in some of the country's largest school systems" (p. xxiv).

A Word to Some Parents and School Board Members

The report does not overlook the responsibility of parents and school boards thwarting thousands of dedicated teachers who wished to maintain standards. "They were thwarted," the report says, "by parents who abdicated their responsibility to the school, who singly or in groups, clamored for easier courses, and to promote all children irrespective of merit or achievement" (p. xxv). "School boards lost in the financial problems permitted control of curriculum to pass into hands of professional administrators most of whom undoubtedly disagreed with the trends. But too many, parents administrators, school board members "were steeped in an educational philosophy that recognized no hierarchy of subjects and has little regard for intellectual excellence and mental disciplines, welcomed and furthered the trend toward lower standards" (p. xxv).

The Danger of Mirage in National Statistics

We want to give a word of warning before our final point. It relates to national statistics. It is indicated especially in the first of the conclusions given above. The enrollment problems are not national problems; they are local problems. Notice the sharp difference between the problems in the low income and high income states. If the problem were analyzed further, sharp distinctions would be found within each state of both types, or of the four types given in the report. I first became aware of how national statistics really hid problems rather than revealed them in connection with the statistics of the Selective Service System in World War II. As an Army officer, I wrote a report for the House Military Affairs Committee in which I pointed out the situation and called the statistics which were being reported to Congress, a "statistical mirage." National educational statistics even when accurate and honestly compiled are often a statistical mirage.

Available Public Information Not Always Reliable

Our final point may be the most significant part of this review. It is the amazing amount of misinformation, guesses, wrong assumptions, noncomparable statistics, and loose statements that have been furnished by highly respected educational authorities, and the way propaganda slogans and assumptions are taken up by these same authorities. The kind of information the citizen generally and the ordinary members of the profession receive is unfortunately not always reliable. Some of the author's illustrations are:

1. *Increasing Cost of Education:* William G. Carr of the NEA says the principal cause of increasing total cost of education is due to increasing enrollment and decreasing purchasing power (p. 17).

The Report says: "It is apparent that larger enrollment and higher prices together accounted for about one fourth of the increase in school operating costs between 1930 and 1956; three fourths of the increase was due to other factors" (p. 21).

2. *Noncomparable statistics.* An NEA report says in italics "The schools have steadily fallen in their efforts to match the increase in enrollment with a commensurate increase in teaching staff" (p. 74).

The Report points out in the statistics which are compared, the "supervisory employees" are used in one and excluded from the other. "Furthermore, so-called "other instructional staff" — nonsupervisory teachers who are not employed in classroom teaching — also were excluded from the totals in 1954–55 to 1956–57. Prior to 1954–55 this category was not separately computed by the NEA, but seems to have been included in the total instructional force" (p. 75).

3. *Are Class Sizes Increasing?* Mr. Carr is quoted three times in support of this increasing size of classes (pp. 78–79).

The Report specifically challenges the statement in urban school systems: "A review of available statistics shows that class sizes have been declining" (p. 79). And the Report adds later, noting there may be isolated instances: "But for the country as a whole, class sizes have been declining substantially although apparently not as fast as school administrators and teacher organizations would have liked" (p. 80).

4. *Are Small Classes Better?* It may be noted here that in spite of the efforts for small classes, and the "common sense" support of the idea that they are better, the Report points out: "We note then the amazing fact that factual research studies found better than two to one that pupil achievement is higher in larger than in small classes" (p. 81).

5. *U. S. Office of Education Underestimates Supply.* The Report points out: "An analysis of the teacher supply and demand released by the Office of Education reveals that they have substantially and consistently underestimated the supply" (p. 49). The amounts were underestimated 72,700 in 1956 and 57,300 in 1957 (p. 49).

6. *U. S. Office of Education Overestimates Enrollment.* The Report says: "Each year just prior to school opening the Office of Education releases estimates of school enrollment in the new school year and shows comparison with the preceding year. For a number of years, the advance estimates for public schools (at the beginning of the school year) have been about one-half million higher than the enrollment figures published a year later" (p. 32).

7. President Conant's prediction in 1936 that we would have a stationary population by 1960, and our ever enlarging school system would be past, has gone the way of a great many other educational projections (p. 25).

8. *State Reports on School Housing Not Factual.* "The inconsistencies of these reports (School Facilities Survey) are not the result of poor staff work. The School Housing Section of the U. S. Office of Education for years has sincerely been trying to gather reliable data on school building shortages. Its staff has done a vast amount of dedicated work, assembling the information supplied by state and local education departments and making it available to the public. But it seems the replies to the questionnaires express more nearly the state of mind of those who prepared them — of varying state and local concepts of 'satisfactory' school facilities than the actual school building situation." (pp. 191–92).

9. *A Mistaken Basis.* The almost universal chorus of the worsening teacher supply is a little flat. It made a fundamental mistake in reading the notes. "Both the Office of Education and the NEA base their estimates of teacher shortages on the assumption that new supply for the school year consisted of the teachers who graduated from college in the preceding academic year, and that about 70 per cent of them would enter teaching. But within the past

(Concluded on page 62)

WORD FROM WASHINGTON

The Federal Aid Law

ELAINE EXTON

The struggle to enact the four-year $887 million federal-aid-to-education program framed to help meet Russia's scientific challenges which finally won the approval of the 85th Congress in its closing hours and was signed into law by President Eisenhower on September 2, 1958, was as suspense-filled and action-packed as a nickelodeon melodrama.

Could the powerful adversaries on the House Rules Committee, including the Chairman, Representative Howard Smith (D., Va.) and the ranking minority member Representative Leo E. Allen (R., Ill.) succeed in bottling up the bill the House Education and Labor Committee adopted by a vote of 23 to 2? Could the House and Senate-passed versions of the legislation be reconciled in conference? Would both houses of Congress accept the compromise report the conferees drafted? Would the Congress stay in session long enough to complete action on the measure? Would authorizing funds for area vocational schools lead to a Presidential veto?

These were among the questions shrouding the final outcome with doubt as opponents and proponents vied for advantage in the sometimes fast, sometimes slow-paced drama of the measures' movement down the federal legislative course.

Factors Facilitating Passage

While many factors affect the passage of a bill, teamwork and a willingness to compromise played key roles in reaching a victory.

Senator Lister Hill (D., Ala.), the Chairman of the Senate Committee on Labor and Public Welfare, and Representative Carl Elliott (D., Ala.), Chairman of a House Subcommittee on Special Education, the two men at the throttle of the Congressional drive to enact an aid-to-education measure, recognized at the outset that it would be difficult to gain Congressional approval for an education program that was out of line with what the Administration wanted so they began early in the session to lay the groundwork for bipartisan support.

They were conscientious, too, in canvassing a wide range of thinking on how best to stimulate and strengthen education to meet emergency needs important to our national security, holding extensive hearings in the course of which many eminent Americans testified supplying useful information. These were followed by long hours in committee meetings where basic issues were thoroughly discussed and differences threshed out.

As work in firming up the measures that emerged from the House and Senate committees progressed, their members became increasingly convinced that need for the legislation outweighed partisan considerations, explains Representative Peter Frelinghuysen, Jr. (R., N. J.), who reports this awareness of the need for unity was strengthened by the realization that a segment of the Congress is opposed to federal aid to education in any form.

Effective Strategy

Heading the stellar cast of players was the President who asked for a "broad temporary program of aid to education which is largely science-oriented" to cost $882 million over a 4-year period in his budget message for the fiscal year starting in July, 1958.

Reiterating his belief that "enactment of the emergency four-year program, recommended by the Administration, would have far-reaching benefits to education and to national security," President Eisenhower in a letter to Representative Stuyvesant Wainwright (R., N. Y.) called the passage of a sound educational bill "a top-priority objective for this session of Congress," stating "I heartily support your efforts to achieve this objective."

In turn the majority and minority leaders of the House and Senate performed their parts in giving the education legislation a "priority" billing that kept it moving through Congressional legislative channels. Declaring his hope that the Senate would pass the measure, Senate Majority Leader Lyndon Johnson (D., Texas) said he knew "of nothing which has higher priority than the education of our children and their preparation for the needs of the modern world," while House Speaker Sam Rayburn (D., Texas) engaged in quiet, behind-the-scenes persuasion to pry the measure loose from the House Rules Committee.

At the appropriate times House Minority Leader Joseph W. Martin, Jr. (R., Mass.) reminded members of the President's interest and termed the bill "a good, fair compromise" commending Congressman Elliott and his committee for working "without concern for politics but for the purpose of making a better America."

In the wings officials of the Department of Health, Education, and Welfare synchronized their efforts with those of the Congressional friends of the measure in supplying encouragement and factual data. To Elliott Richardson, the Assistant Secretary for Legislation, praise is due for this adroit liaison.

Off-stage interested organizations and individuals pressed for action and mustered influence to line up votes. Their strategy included a joint plea for enacting a National Defense Education bill signed by representatives of 22 national organizations which was dispatched to every member of the House and Senate before the beginning of the floor debate. The full resources of the National Education Association were thrown behind the legislation as a result of action authorized by its Representative Assembly on July 3 during its 1958 convention.

Congressional Attitudes

Out of these manifold activities evolved a compromise bill which the Senate approved by a roll-call vote of 66 to 15 on August 22 and the House adopted a day later by a roll-call vote of 212 to 85.*

Supporters hailed its passage as "a landmark in the history of American education" (Rep. Judd, R., Minn.), "a far-reaching bill which will not only enrich the lives of many American boys and girls, but will add vastly to the strength and security of the United States" (Senator Gore, D., Tenn.), "one of the finest pieces of legislation which this Congress has produced" (Rep. Holifield, D., Calif.).

Members like Senator James Murray and Representative Lee Metcalf who had backed a broader program of federal aid for teachers salaries and school construction termed the legislation "splendid" but "inadequate" and looked to the next Congress to take further action. Representative Stewart Udall (D., Ariz.) described the Congressional balance on this issue as "close enough so that if the new members in the new Congress have a somewhat different point of view from some who are leaving and there is additional grassroots support we may be on the verge of action addressed to the total problem."

Though the end result fell short of the goals of some, no one who watched the determined parliamentary maneuvering of the opposition who denounced the legislation as a giveaway raid on the federal treasury and an entering wedge for federal control could doubt that as Representative Carroll Kearns (R., Pa.) remarked "we have the best bill we can get."

Among the tactics used to prevent en-

*Persons interested in following the progress of the Defense Education Bills through Congress will find the debates published in the following pages of the *Congressional Record* which may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.: *HOUSE* — August 7, 1958, 20¢ ea. (pp. 15192–15218), August 8, 26¢ ea. (pp. 15303–15367), August 21, 36¢ ea. (Conference Report on H. R. 13247, (pp. 17500–17510), August 23, 37¢ ea. (pp. 17905–17917); *SENATE* — August 13, 1958, 36¢ ea. (pp. 15831–, 15876–, 15909–15933), August 22, 36¢ ea. (pp. 17577–17587).

actment were offering a substitute measure featuring a guaranteed loan program similar to the GI housing plan (Rep. William Ayres, R., O.), motions to strike out the enacting clause (Rep. H. R. Gross, R., Iowa, and others), motions to recommit the bill to the education committee (Rep. Ralph W. Gwinn, R., N. Y., and others), sidetracking consideration of the Conference Report (House Report No. 2688) by a single objection (Rep. Johansen, R., Mich.) and moving to amend the legislation to exclude the state of Indiana (Sen. Jenner, R., Ind.).

The Legislation's Provisions

The National Defense Education Act of 1958 as passed by Congress expressly prohibits federal control over the curriculum, program of instruction, administration, or personnel of any educational institution or school system. Its main provisions are summarized below.

Before adjourning, Congress appropriated $40 million to inaugurate the program. While some states may be in position to take advantage of the arrangements almost immediately, in others new state laws and appropriations may be necessary to participate in the activities with matching requirements. Since the circumstances vary so widely, for more detailed information write to the State Department of Education or to the U. S. Office of Education, Washington 25, D. C.

School-Related Activities Strengthening Science, Math, Foreign Languages

Funds authorized: $300 million over a 4-year period.

$70 million is authorized annually for each of the four fiscal years 1959, 1960, 1961, and 1962 for these two programs:

1. Grants to state educational agencies for acquiring laboratories and other special equipment, including audio-visual materials and equipment and printed materials, other than textbooks, suitable for use in providing education in science, mathematics, or foreign language in public elementary and secondary schools and for minor remodeling.

Allocations will be made to the 48 states and the District of Columbia on the basis of a statutory formula which takes into account the school-age population of these states and their income per school-age child. Acceptance entails matching on a 50-50 basis.

Under this portion of the Act the term "secondary school" may be interpreted to "include a public junior college, as determined by state law."

2. Loans to enable "private nonprofit elementary and secondary schools" in each state to borrow money directly from the federal government for the purchase of science and other teaching equipment of the type described above.

Such funds would be allotted among the states on the basis of the relative numbers of children enrolled in private nonprofit elementary and secondary schools in the respective states. Twelve per cent of the yearly $70 million authorization would be reserved for these loans which are to be repaid over a period of up to 10 years.

An additional expenditure of $5 million is authorized for each of 4 fiscal years for use in administering state plans and for the expansion or improvement of supervisory or related services in public elementary and secondary schools in the fields of science, math, and modern foreign languages.

Guidance, Counseling, and Testing

Funds authorized: $60 million over a 4-year period ($15 million a year).

Grants will be made available to state educational agencies to assist them to establish and maintain programs of testing and of guidance and counseling in secondary schools. Federal money must be matched by the states on a dollar-for-dollar basis after the first year.

Area Vocational Education Programs

Funds authorized: $60 million over a 4-year period ($15 million a year).

Adds a new title to the Vocational Education Act of 1946 (George-Barden Act) to allow annual appropriations for fiscal 1959 and each of the three succeeding fiscal years thereafter to states and local areas to conduct less-than-college grade courses designed to fit individuals (youths, adults, and older persons) "for useful employment as highly skilled technicians in recognized occupations requiring scientific knowledge, as determined by the state board . . . in fields necessary for the national defense."

The federal grants must be matched dollar for dollar by the states and may not be used to reduce the state or local funds now being spent on other state vocational education programs.

New Educational Media

Funds Authorized: $18 million over a 4-year period ($3 million the 1st year and $5 million for each of the three following fiscal years).

The money would enable the U. S. Commissioner of Education "to conduct, assist, and foster research and experimentation in the development and evaluation of projects" involving television, radio, motion pictures, and related media of communication which may prove of value to education at all levels. This encompasses the development of new and more effective techniques and methods for their use as teaching aids.

Through grants and contracts funds may be made available to individuals as well as to both public and nonprofit private agencies. The establishment of an Advisory Committee on New Educational Media is authorized to review and approve all contracts and otherwise assist with the program.

Other Features

Another feature of the legislation provides $6.5 million over a 4-year period for improvement of statistical services of the state education agencies which must match the federal grants on a 50-50 basis, with $50,000 the maximum allowed a state in a single fiscal year.

A total of $28 million ($6.25 million the 1st year and $7.25 million for each of the 3 succeeding fiscal years) is authorized for contracts with colleges to operate short-term or regular session institutes for training present and potential public secondary school personnel in guidance and counseling.

An additional $29 million ($7.25 million for each of 4 years) is authorized to finance similar contracts with colleges for operating foreign language institutes for advanced training of public elementary and secondary school foreign language teachers and supervisors in using new teaching methods and instructional materials.

Participants in either program are eligible to receive a stipend of $75 a week while in attendance at such institutes plus an additional $15 a week for each of their dependents.

Largely Higher Education Projects Student Loans

Funds authorized: $295 million over a 4-year period ($47.5 million the 1st year rising to $90 million in the 4th).

The U. S. Commissioner of Education would channel a federal contribution to institutions of higher education for establishing a student loan fund to which each participating college would contribute not less than 10 per cent, the federal share not to exceed $250,000 to a single institution in any fiscal year.

To be eligible students must be enrolled in an institution of higher education in "full-time" undergraduate work and in need of the loan to pursue their course of study. In awarding the loans institutions are required to give special consideration to "(*a*) students with a superior academic background who express a desire to teach in elementary or secondary schools and (*b*) students whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language."

An eligible student may borrow up to $1,000 a year, depending on need, over a 5-year period, the total not to exceed $5,000. A student obtaining his loan in the 3rd year of the program would be entitled to complete his full 4 or 5 year course under a "phasing out" provision.

The loan, plus interest at the rate of 3 per cent, would be repaid over a 10-year period beginning 1 year after the borrower leaves college. In the event he serves as a full-time teacher in a public elementary or secondary school, up to 50 per cent of the loan (plus interest) can be canceled at the rate of 10 per cent a year for each year spent in teaching up to 5 years.

National Defense Fellowships

Funds authorized: Approximately $59.4 million over a 4-year period. (Roughly $4.8 million in the first year rising to $22.5 million in the 4th).

The U. S. Commissioner of Education is empowered to award 5500 fellowships over a 4-year period (1000 in the program's 1st year and 1500 new fellowships for each of the next 3 fiscal years) to individuals in graduate work.

Persons receiving fellowships must be accepted for study in graduate programs of institutions of higher education, that are approved by the U. S. Commissioner of Education. To have a graduate program approved, the institution must apply to the Commissioner and he must find that the program is a new program or an existing program which has been expanded; that the program or the expansion will increase the facilities available for graduate training of college or university teachers, and will promote a wider geographical distribution of such facilities; and that in accepting persons for graduate study in these programs, preference will be given to persons interested in teaching in institutions of higher education.

Each fellowship holder will receive a stipend of $2,000 for the 1st year of graduate study, $2,200 for the 2nd year, and $2,400 for the 3rd year, plus $400 each year for each dependent. These awards do not extend beyond three academic years.

Foreign Language Centers

Funds authorized: $32 million over a 4-year period ($8 million a year).

Contracts would be arranged with higher education institutions on a 50-50 matching basis to facilitate their establishing and operating centers for instruction in languages now rarely taught in the United States and for furnishing instruction "in other fields needed to provide a full understanding of the (geographic) areas . . . in which such languages are commonly used."

At the discretion of the U. S. Commissioner of Education the federal funds may also be used to pay stipends to individuals taking advanced training in the above categories and to help finance related research and studies. ■

THE AMERICAN
School Board Journal

An Independent Periodical of School Administration
William C. Bruce, *Editor*

Guest Editorial

DO YOU OWN THE PLACE, OR DO YOU JUST ACT THAT WAY?

ALL of us walk the border line between proprietary conduct of our jobs and democratic procedure. Even though we may not be aware that we act as though we "own the place," that may be exactly the impression we give other people. Although the term is not used too frequently, "proprietary" meanings form a basic part of our lives. The word is defined as "holding property," "one's own," "a possessor in his own right," etc. As teachers or educators we may be the duly elected representatives of the people, and it is easy to become proprietary in attitude after long employment, or familiarity with a job. This can be bad. It is offensive in public relations. It prevents change, growth, and improvement in our work, usually leading to crystallization in all areas. In education, it applies to all types of employee classifications: teachers, college professors, secretaries, school administrators, and custodians.

The Proprietary Attitude

The proprietary attitude should not be confused with loyalty to position and employer. Loyalty is a very necessary quality, and perhaps proprietary interest is merely the next dangerous step. How, then, may we avoid it? How do we identify proprietary attitude in ourselves and others? How do we know when we are becoming overprotective of our status and jobs? What are the manifestations? What can we do about it? A good method of analysis is to note the statements of people in conversation.

Possessive expressions that are familiar to all of us may be noted, as in the following examples: *"We always have* done it this way; *we never have* done it any other way." "We must meet the rules of the accrediting association." (This is blanket coverage for the speaker — few people have ever read the rules of the accrediting association, or *any* accrediting association. The speaker also implies that only he is an authority on rules). "You can try it, but you will wish you hadn't" (the voice of experience, and a sure way to have someone try it). "What makes you think you have the qualifications to take this course?" *"Whose* idea was this? (anyway)" *"It has been decided not* to approve your request." "The janitor must *never* start sweeping *my room* before four thirty." *"Nothing* can be done about this" (this is the absolute).

Have you ever met people who talk this way? Sure you have. Have you had unfavorable experiences with them? If you have, it was not only an experience, it was a conflict. Resistance to ideas, or change, is an expected form of behavior with many people. What makes people act so hostile and dogmatically?

Many Motivations

The proprietary attitude is motivated by many things, and we do not have to rush to the psychology books and quote references to identify them. Most of us will recognize the causes without research. That is, *in other people*. The insidious thing is, we cannot recognize them in ourselves until, perhaps, too late. Some of the reasons for such behavior are fear of loss of security, or status; a power complex, or love of ordering people around; the desire to maintain security of routine, to stay in the comfortable rut, where any suggestion of change must be met head on.

In committee positions there are always the experienced, or holdover members, who are prompt in indoctrinating new members in *the way* things are done. Thus, "The Proprietors" perpetuate their ideas, traditions, prejudices, and practices. Undoubtedly the proprietary attitude as exercised by some public office holders has done much to keep alive the old slogan, "throw the rascals out." Some governmental bodies have done much to improve public relations by holding meetings which are open to the public, and constructive criticism is welcomed. In July of 1957 it was reported in the *Congressional Quarterly* that Congress had held only one third of its committee meetings in secret. Specifically, 854 of 2517 committee meetings, or 34 per cent, were closed to the public between the opening of Congress and July 7. The customary excuse for closed meetings was reasons of security. As citizens we want a feeling of permanence in our governmental positions, but we also want information.

Development of the Attitude

Probably the development of the proprietary attitude is inherent in our culture. As we progress from youth we are exposed to the mores of organizational procedure which permit and encourage us to accept or reject people as members of a club, fraternity, or business organization. Public school teachers generally, from the first grade on, attempt to train people to share with others. But the selfish instinct to possess dominates the lives of nearly everyone. The amount of "sharing" done is limited to a very small per cent of our lives and income. If anyone doubts this, let him attempt to drive an automobile through city traffic, or a few blocks for that matter. The experience may convince him that any attempts to prevent future wars are pretty likely to be futile. Not only are we unlikely to want to get along with people of other lands, but we will be ready to start a "brush fire" war right here at home before other drivers will let us break into line.

Actually then, we may chart our course of conduct in avoiding proprietary conduct by remembering and practicing some familiar rules. We must be modest in the conduct of our work at any status level. We must be efficient, competent, and avoid giving the impression that we are indispensable.

It should be the business of a Democracy to utilize its best talent for the good of all. Therefore, there should be no ceiling on personal development and achievement within the framework of our society and within the limits of good conduct.

— **Paul L. Kirk**
Director, Portland, Ore., Evening Schools

Real intelligence is a creative use of knowledge, not merely an accumulation of facts. The slow thinker who can finally come up with an idea of his own is more important to the world than a walking encyclopedia who hasn't learned how to use information productively. — *D.K. Winebrenner*

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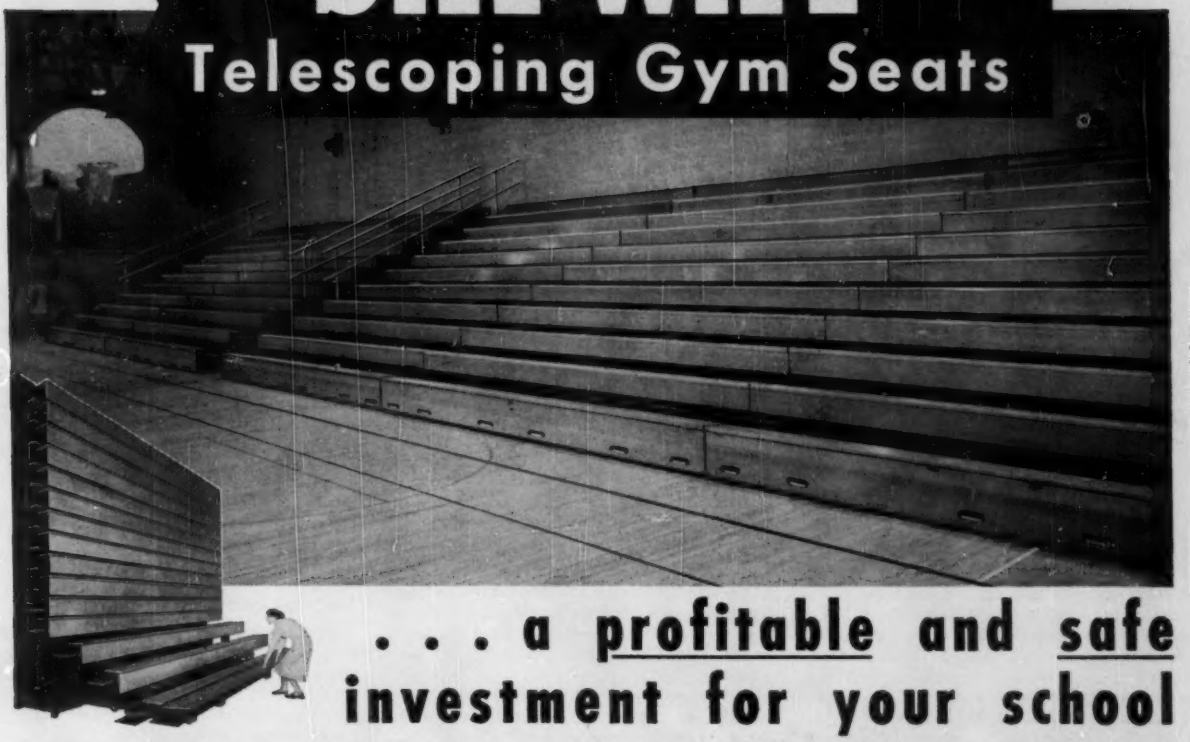

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Lawsuits Against School Boards

STEPHEN F. ROACH

Editor, **Eastern School Law Review**, Jersey City, N. J.

That suits at law against school districts have almost innumerable ramifications is a point which need not be labored. Even the briefest consideration of the functions assigned to school boards will suggest the wide variety of *subject matter* concerning which legal action might be taken.

But in addition to the variety of subject matter for possible litigation, the appropriateness of the *procedure utilized* in a legal action must also be considered.

An interesting case[1] involving these aspects of board operations was decided recently in the Supreme Court of New Mexico.

Facts of the Case

McWhorter, a man about 70 years old, was employed by the Tatum Independent School District, in Lea County, as a janitor in the work of repair and maintenance of school buildings and grounds.

On June 1, 1955, while standing on a ladder some 12 feet above the gymnasium floor, replacing broken window panes, McWhorter fell, breaking bones in both feet. Since that time he had performed no work for the employing board. However the district continued to pay his salary for 11 months after the accident, in the total sum of $2,860.

McWhorter had worked for the Tatum district approximately ten years. After ten years of service he would have been eligible (in the event of disability) for benefits for the duration of his life under the State Educational Disability Pension Program. The district had continued to pay McWhorter his salary monthly in order to allow time in which to arrange for and obtain for him these disability retirement benefits.

The district contemplated that the payment of salary until the pension commenced and thereafter the pension for life would be full and complete settlement of any claim.

McWhorter waited approximately 11 months for the pension arrangements to be made. The arrangements not being completed prior to the expiration of one year after the date of the injury, he then brought suit under the state Workmen's Compensation Act.

The trial court entered judgment allowing McWhorter compensation during the period of his disability — but not to exceed 550 weeks — at the rate of $30 per week from the date of the injury. Additional awards for medical bills and attorney fees totaling $2,590 were also granted. In turn the board was to be credited with the $2,860 it had paid in salary, following the accident, for which no services had been rendered.

The district thereupon appealed, contending that as a political subdivision and agency of the State, exercising governmental functions and powers, it could not be held legally liable since it had neither consented to be sued nor waived its immunity. Therefore, it contended, the trial court had no jurisdiction to enter judgment against it.

The Issues

The basic point at issue here was whether the Tatum district could be held legally liable under the circumstances cited.

Less narrow, and hence of more interest to school board members generally, was the related issue: May legal action be brought against a school district in an instance where it neither consented to be sued nor waived its immunity? The views of the court on this aspect of the case will be of considerable significance to the day-to-day operations of every school board.

Findings of the Court

The present court first noted that while the district had not had workmen's compensation insurance covering the injured employee "it was conclusively presumed" that the district had nevertheless accepted the provisions of the act.

To McWhorter's contention that a school district was not such an agency of the State that suit might not be brought against it (under the Workmen's Compensation Act) without its consent — but was a municipal corporation, and hence subject to suit — the court denied credence. In so doing the court held that "a school district is a part of the state government." Any corporate status it possessed had been given it *by the state* only because the state believed that thereby the district could "more effectually discharge its appointed duties." Such incorporation, the opinion emphasized, was thus "for convenience only and [was] not intended for a separate existence."

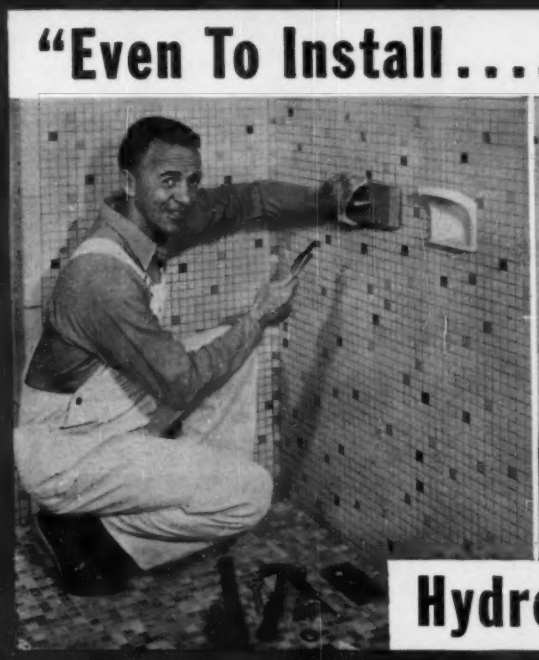
The court then considered the contention that the wording of the New Mexico Workmen's Compensation Act itself — by including school districts in the enumerated employers subject to its provisions — made a school district subject to suit thereunder without consent. In reply, the opinion commented: "However, the state itself is included in that listing. It is surely not the purpose of the Act to permit suit against the state without consent having been first obtained. There is likewise no basis to assume that the school district can be sued without consent on the strength of its inclusion in the statute."

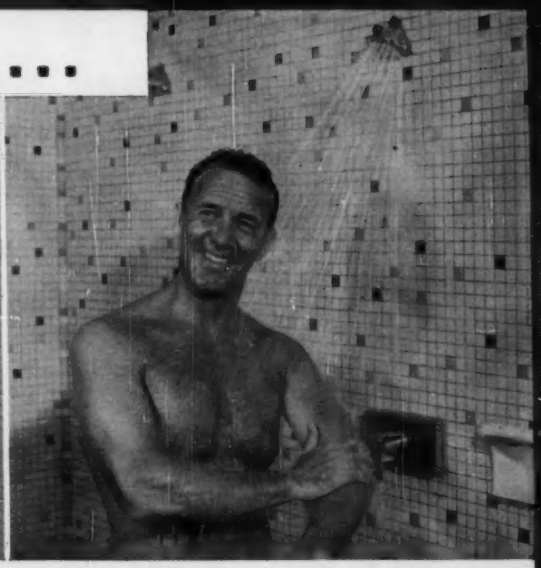
Thereupon the present court concluded: "We feel the school district is a political subdivision of the state created to aid in the administration of education, and subject, in this case, to the immunities available to the state itself."

Having thus determined that the suit below could not have been brought against the district — i.e. that the trial court had no jurisdiction to entertain the suit — the lower court judgment was reversed and the award set aside. ■

[1] *McWhorter* v. *Bd. of Educ. of Tatum Independent S.D. No. 28, Lea County;* cited as 320 P. 2d 1025 (N. Mex.) (1958) in the *West National Reporter System.*

"Even To Install.....





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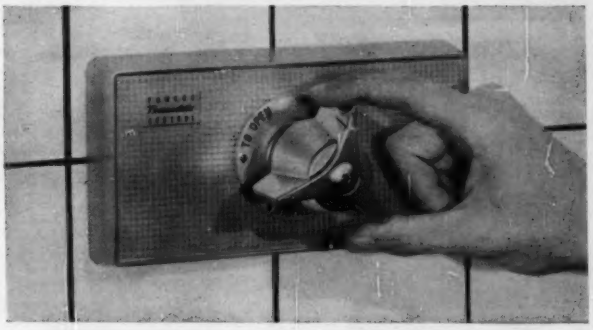

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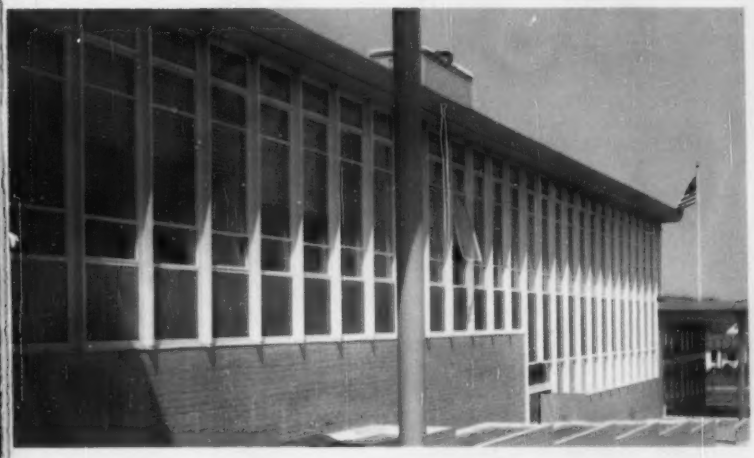


There's an extra 500 square feet of floor area inside the Church Street School because the steel window walls are so slim. The porcelain-enameled steel panels are only 1⅞" thick. The outside face is 16-gage enameling steel with a permanently fired porcelain finish. Ordinary rainfall keeps the panels clean. They don't need any maintenance. The color *will not fade.* On the classroom side, the panels are also 16-gage steel, galvanized, bonderized and painted. Each panel contains a full inch of fibrous glass insulation that gives a U-value of 0.20. Heating is no problem.

Construction costs were low. The builders were able to use lighter foundation material and lighter structural sections because steel window walls are so light. *Labor* cost was low because this type of construction is fast and easy.

Don't you agree that steel window wall construction deserves *your* special attention? Write for more information. United States Steel, 525 William Penn Place, Pittsburgh 30, Pa. *USS is a registered trademark*

Church Street Elementary School, White Plains, New York
Architects: Knappe & Johnson, Scarsdale, and Manhasset, New York
Panel Fabricator: Davidson Enamel Products, Inc., Lima, Ohio
General Contractor: Riverso Construction Company, Inc.
Scarsdale, New York

USS **United States Steel**

SCHOOL NEEDS

(Concluded from page 53)

year or two it has become evident that only half the newly hired teachers represent the new college crop. The other half had graduated in earlier years and delayed their teaching career for several years, taken other jobs or left teaching, and were coming back to teaching from other pursuits" (p. 51).

10. *Declining Quality of Teaching Staff?* "The commonly used yardstick of staff quality is the teachers' formal education, the length of their training and the level of the academic degrees they hold." But accepting these standards, though we are very uncertain about any certain relation to teaching ability, we note the Report's statement: "The evidence is overwhelming that in *terms of formal education* the quality of the teaching staff has greatly improved, all statements and predictions about the deterioration, notwithstanding" (p. 60).

Obviously anyone concerned with education, especially school board members, should be always on their guard about the assumptions, statistics, projections, and propaganda conclusions in discussions of educational problems. A school board member as well as the superintendent and the citizen interested in education should always check these general discussions in terms of the *facts* of the local situation. Educational problems are really not national, nor state, nor city-wide problems. They are more often individual school or neighborhood problems and are frequently classroom problems. The meaning or significance of the terribly impressive national or state or city-wide statistics are what they signify to the individual school and classroom. A great deal of the general discussion is designed to get more money for education — without too great concern how the money is spent and what for. We can conclude this discussion best with this statement of the report:

"Most studies which tried to equate the quality of education with the number of dollars spent, are long on presumption and short on evidence. As a rule, they rate a school not by the progress of its pupils in acquiring skills and knowledge but by the desirable features" of the school and its program, the variety of offerings, the teacher-pupil ratio, etc. Many or most of these criteria depend on the amount of money spent and have little relation to the quality of education transmitted to the pupils. The few studies which measured academic achievement against expenditures, such as the 1956 Connecticut project, found little or no correlation between the two" (pp. xxiii–xxiv). ■

NEW BOOKS

A Manual for School Board Members

By Leonard E. Meece. Paper, 61 pp. Bulletin No. 4, June, 1957. Bureau of School Service, University of Kentucky, Lexington.

This bulletin is designed to assist members of local school boards in understanding further their important community and educational responsibilities. It takes up (1) agencies responsible for public education, (2) relationship of the board to school personnel, (3) relationship of the board to the state, (4) relationship of the board to the public, and (5) questions and answers on school law. Experienced as well as inexperienced board members will find the material helpful as a guide to good board practice. New members will find good use for suggestions to questions on how to become effective members.

Handbook for Colorado School Directors

Paper, 56 pp. Published by the Colorado State Department of Education, Denver, Colo.

This statement, prepared jointly by the Colorado Association of School Boards and the Colorado State Department of Education, outlines in seven sections the functions, responsibilities, liabilities, and relations of school boards as representatives of the community in the management of school systems. Section 1 outlines the general functions, responsibilities, and liabilities; Section 2 takes up the relations with the superintendent of schools and the teaching staff; Section 3 presents the partnership role of the local school boards with the State Department in administration; a very effective statement is made in Section 4 of the relationships of the local boards with the professional and official regulatory organizations, e.g., the Northcentral Association. Dr. Calvin Grieder makes a significant summary of guiding principles for effective board membership in Section 5. In Section 6 public relations with the community are discussed. The final section is devoted to state and national liaison with other school boards and school board organizations.

Bending the Twig

By Augustin G. Rudd. Cloth, 314 pp., $3.95. The Heritage Foundation, 121 W. Wacker Drive, Chicago 1, Ill., 1957.

An exposition of the process by which the so-called Progressive system of education gradually but practically "took over" the public schools of the United States since about the second decade of the twentieth century.

Speaking of Progressive education, the author says: "to many it stands for a revolutionary change in the very purpose of public education — a shift from the educational objective of imparting factual knowledge to the political objective of indoctrinating the child for the remaking of society — to bring about a new social order" (p. 18). And this is what Progressive education means to Colonel Rudd, who for nearly 20 years has been a lay leader in combating and exposing the fallacies of the "New Education."

Academic Achievement of Gifted High School Students

By Leslie J. Nason. Cloth, 92 pp., $3.95. University of California Press, Los Angeles 7, Calif.

This study identifies the factors which seek to regulate achievement of pupils of superior ability. Its purpose is to help teachers and administrators to provide individual guidance and that pattern of help which will enable gifted pupils to thoroughly realize their superior abilities.

Progress in Public Education in the United States

Compiled under the direction of Lawrence G. Derthick, Commissioner. Paper, 26 pp. U. S. Office of Education, Washington 25, D. C.

The booklet discusses elementary and secondary education, higher education, financing of education, educational organization, study plans and curriculums, audio-visual aids, educational research, and international education. The pamphlet concludes with the statement that schools at all levels have re-evaluated their programs in the light of social, economic, and technological changes, with the spotlight on better education in the high schools, on teaching mathematics, science, and foreign languages, and on provision for gifted children.

Also Received

The High School in a New Era

Edited by Francis S. Chase and Harold A. Anderson. Cloth, xv–465 pp., $5.75. The University of Chicago Press, Chicago 37, Ill.

A report of a conference intended to challenge present high school conditions and to upgrade the organization and achievements of the schools in the United States.

Research in the Teaching of Mathematics

By Kenneth E. Brown. Paper, 73 pp. Bulletin No. 4, 1958, U. S. Office of Education. Price, 25 cents. Superintendent of Documents, Government Printing Office, Washington 25, D. C.

This study reports the findings during the years 1955 and 1956. Several studies placed emphasis on understanding concepts and on the content of high school courses.

Instructing Visually Limited Boys and Girls

Prepared under the direction of William A. Hamm, Helen W. Fields, George Zuckerman, and William H. Bristow. Paper, 57 pp. New York City board of education, 110 Livingston St., Brooklyn 1, N. Y.

A visual handicap no longer means that a child cannot, or will not, receive a good education. Under the New York City program, visually handicapped children receive special training and they also share in the activities of the regular classrooms. This bulletin seeks to assist teachers, parents, school administrators, and community agencies in their efforts to plan more effectively for these children. The program sets up curriculum adaptations for sight conservation children, provides for blind children in regular classes, and offers administering programs for visually limited children.

What Happened to Religious Education?

By William Kailer Dunn. Cloth, 346 pp., $5. The Johns Hopkins Press, Baltimore 18, Md.

This book traces the status and the decline of the teaching of religion in American public schools from 1776 to 1861. The author finds that up to 1827, when Massachusetts passed a law forbidding the use of sectarian textbooks in public schools, there was no disposition to question the right and the necessity to propose religious ideas in the schools.

A sharp decline of religious education began during the administration of Horace Mann in the Massachusetts schools, continuing until the beginning of the Civil War. The author supports his review of the record by numerous extracts from documents and local school regulations, as well as from a vast collection of contemporary textbooks.

The final chapter describes more recent Protestant and Catholic attempts at the solution of the problem of making religion an integral part of the elementary school curriculum. The book is heavily documented and there is a comprehensive bibliography of source materials.

The State and Nonpublic Schools

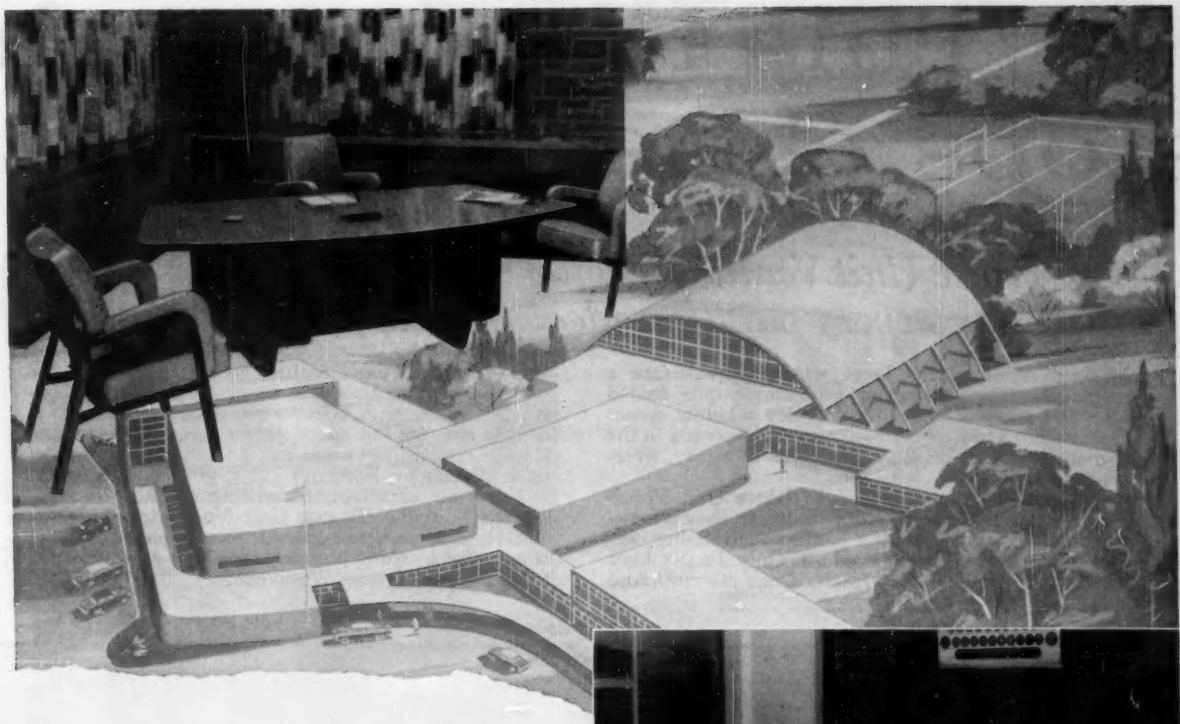
By Fred F. Beach and Robert F. Will. Paper, 152 pp., $1.25. Bulletin No. 28 of the U. S. Office of Education. Superintendent of Documents, Government Printing Office, Washington 25, D. C.

A factual report on the legal controls which the states have over nonpublic schools. The first chapter considers the nonpublic schools as an important educational resource; Chapter II outlines the general nature of state regulations; Chapter III defines the constitutional controls; Chapter IV discusses the responsibilities of state departments of education for private and other nonpublic schools. The basic data on responsibilities of the states is presented in the form of extracts from the Constitutions and the statutes.

Legal Status of Young Adults

By Parnell Callahan. Boards, 96 pp., $2. Oceana Publications, Inc., New York 3, N. Y.

This publication is directed to young adults under 21, and outlines their rights and duties. It includes citizenship, guardianship, criminal law, education, and contracts of minors.



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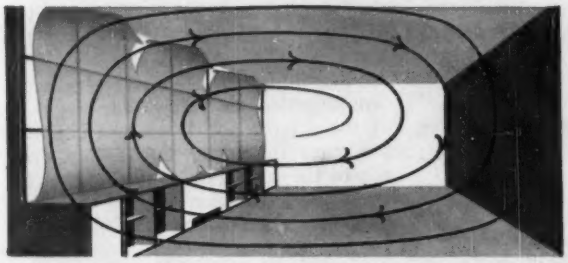
Ask your architect, consulting engineer or contractor how the TRANE Unit Ventilator with exclusive *Kinetic Draft Barrier* can create an ideal climate for learning in your school. Or write directly to TRANE, La Crosse, Wisconsin.

# of tempered air before they start!



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DRIVER EDUCATION

(Concluded from page 25)

the individual attaches to the ownership and "right" to operate a vehicle from all his other possessions and his other "rights" and privileges.

In the operation of a vehicle, the driver is exercising a significant act of his citizenship. It is not only significant, but it is as dangerous an act as the average person ever performs. There are many aspects of citizenship which require no overt action. Driving requires the highest exercise of that part of good citizenship which deals with self-preservation and our responsibilities to our fellow citizens. Driving is a dynamic act which can be filled with enjoyment of the privileges of our common citizenship or fraught with needless tragedy.

A man may fail to vote. If he fails, he is less than a good citizen. If he drives unsafely, for any reason, this misuse of his citizen's privileges endangers himself and others, and wastes property. It is of interest to note that more of our citizens exercise the driving privilege than exercise their right to vote.

Similarly, a boy or girl can "flunk" many subjects and live with reasonable happiness. If he or she "flunks" safety, all too frequently there is no opportunity for a makeup course. We, and he or she, have lost our most valuable resource, a life, or we have lost the potential contribution of a person often because of lifelong injury.

The values, therefore, which attach themselves most naturally to driver education come under the heading of the personal and social responsibilities of good citizenship. We educate the student in these responsibilities, we aid him in developing socially constructive attitudes, we train him in the skills of the driving act. What has been for too many the casual and reckless exercise of the driving privilege, becomes for the driver education student the disciplined exercise of one of his most important responsibilities.

He gains knowledge of: mechanics; physics; chemistry; electricity; socially desirable behavior, laws and regulations; vehicles of different types, their capacities and limitations; the whole field of transportation and its social interactions.

He learns: The discipline of a trained and competent operation, or excellence; the effects of his mental states and physiologic conditions on his driving; the necessity of assuming responsibilities along with privileges; the requirements of group co-operation.

He gains: The satisfactions of the good citizen; the legitimate self-approval of the person who tries hard not to cause another person to suffer by reason of any ill-considered act; the prolonging of life for better adventures and accomplishments; in short the dividends of maturity.

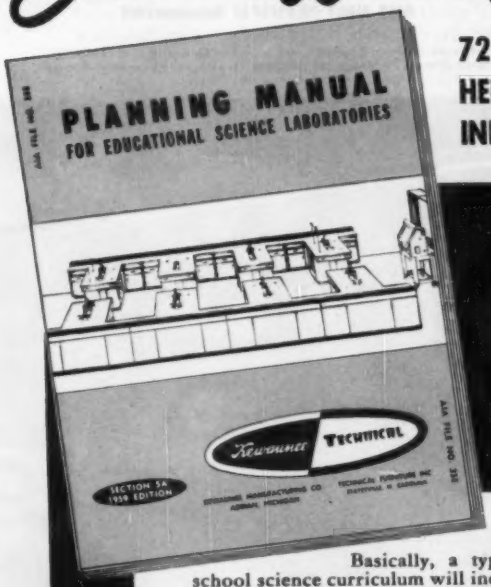
Conclusion:

Between 1951 and 1978, we shall lose in this country, from vehicle accidents alone, a million lives, *unless the tide is turned.*

Certainly the schools cannot do it all, but they *can* meet the needs of one of our important segments of the population, our young people. Schools can affect them while habits and attitudes are being formed. Schools can help to turn into the army of drivers, an increasing number of trained drivers, drivers equipped not only to drive well themselves but to defend themselves more successfully against the actions of less responsible drivers. The schools, too, can be important centers of influence for community and parental safety. Driver training frequently modifies the whole family's driving habits for the better.

We insist, and properly so, on the licensing of drivers, but we had not made provision for drivers to learn how to become responsible drivers until the schools began to take on the task. ■

Just off the press!



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Careful analysis of these combination science room requirements plus the helpful cooperation of leading architects and educators, have resulted in a manual showing 26 floor plans, equipment elevation drawings, roughing-in data and other useful information.

If you are planning new construction or remodeling your present science rooms, this manual will be an invaluable aid.

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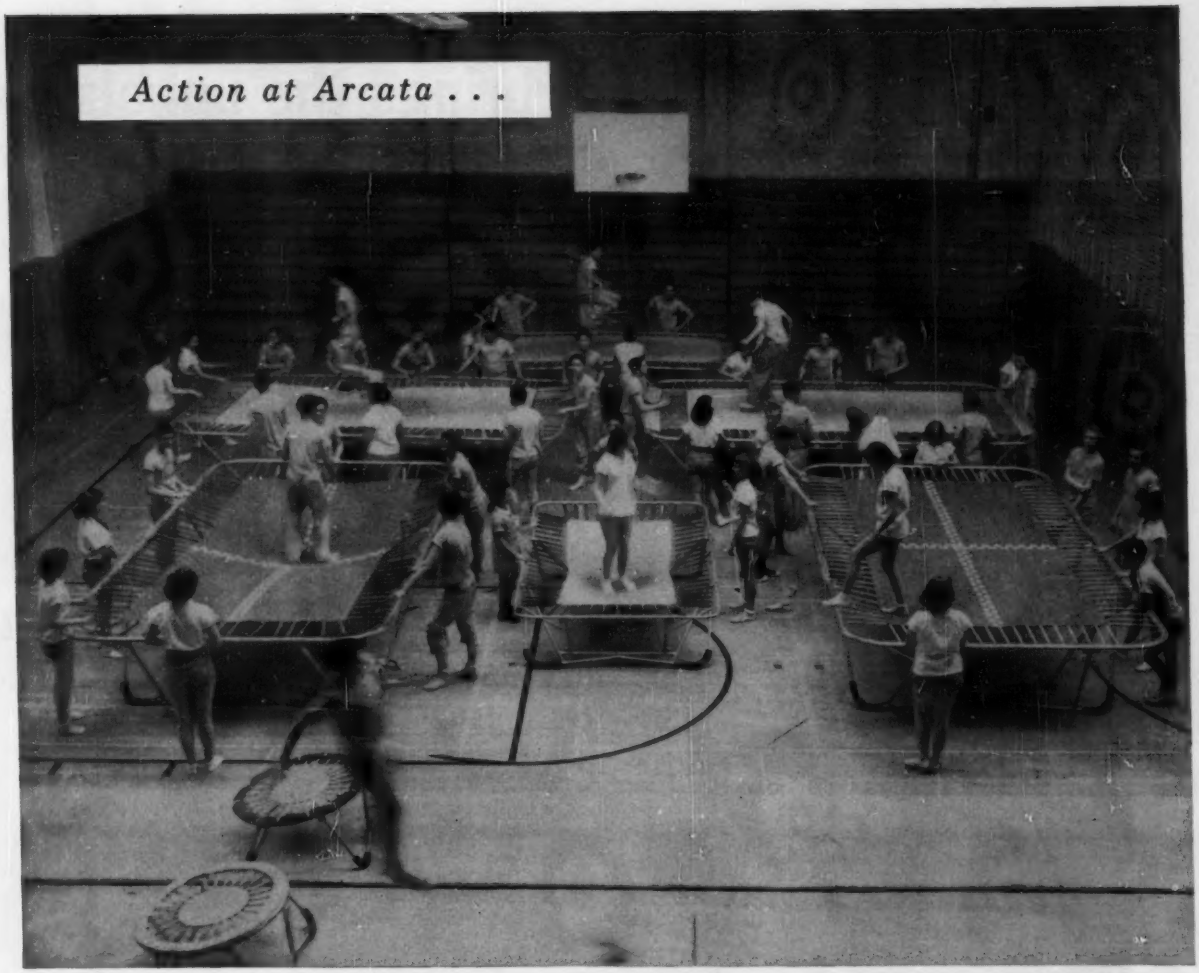

They began with one NISSEN TRAMPOLINE *6 years ago*

What has happened at Arcata High School, Arcata, California, is significant of the trend toward Trampolining in schools and colleges throughout the world. Six years ago, one Nissen Trampoline was introduced as an activity in the boys' program. Today, as shown above, Arcata High School teaches coeducational Trampolining using six Nissen Trampolines. In addition, several Nissen Mini-Tramps are used as gymnastic take-off boards.

Now, more than ever, Nissen Trampolines are constructed to provide unequalled performance and convenience for supervised Trampolining classes. New lighter-weight OVAL TUBING frame assures greater strength and better bouncing action. Nissen Trampoline frames are phospherized, prime-coated and sprayed with aluminum perma-finish for maximum rust-resistance. Adjustable rubber Trampoline Cables are standard equipment on all Nissen Regulation Trampolines. Two-way folding flexibility enables HALF-FOLDING the Trampoline when not in use, as well as COMPLETE FOLDING for storage. There is absolutely no substitute for NISSEN quality and years-ahead design.

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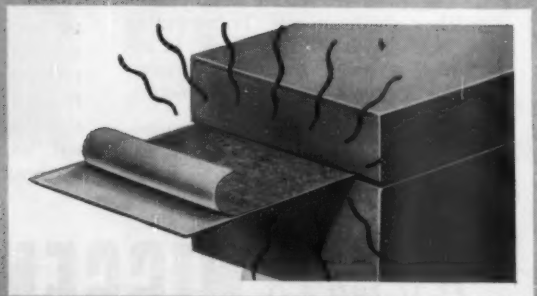

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A Board Member Looks at Reporters

MRS. PHYLLIS R. FLOOD
Member East Haven, Connecticut, Board of Education

Anyone reading "Please! No Party-Line Executive Meetings!" by Ralph N. Schmidt which appeared in the March, 1958 issue of the SCHOOL BOARD JOURNAL would be likely to picture reporters attending school board meetings as gaunt and hungry vultures clutching press passes in their beaks.

Professor Schmidt seemed to imply that reporters keep their ears and eyes glued to keyholes in an effort to secure information damaging to school personnel. Perhaps the professor has had an unfortunate experience in public relations, but he imputes to an innocent majority the faults of a small guilty minority.

The average daily or weekly newspaper doesn't attempt to secure reader and advertiser interest through besmirching reputations or printing petty insubordinations. The editor's main interest is to print legitimate news stories of school activities, whether of student participation or administrative procedure.

News for the People

A reporter assigned to cover a board of education meeting has space to fill. He is there to represent the reading constituency of his paper, the people of the city, and to present to them a factual account of the current operations of the school system. What qualified teachers have been hired? Or resigned? What is the latest change in curriculum? What equipment and facilities are neded to provide a sound education for the children of the community? What are the costs of education that send the budget zooming upward annually?

When a reporter covers a meeting he is often faced with antagonism addressed not so much to himself as a reporter, but as general resentment against "the press." Often statistical reports or even recommendations covering school operations that would be of general interest to the public are withheld from the reporter. No wonder that a chance remark overheard by the reporter leads to misinterpretation of facts — when the facts are withheld. Board members examining such reports often make casual comments about them leading to an erroneous quotation out of context that would have been written correctly had the facts been made available.

Boards sometimes go to such extremes in delegating discussion to executive session that casual items such as announcements of district meetings are discussed privately. Thus the blanket of secrecy is occasionally wrapped around facts of public interest.

And be it added that in some instances discussions of personnel problems which took place in executive session, are "leaked" to the public by board members themselves. It is disconcerting for a reporter to meet someone on the street who openly discusses a privileged problem that was supposedly "top secret."

Room for Betterment

Oftentimes in open meeting matters crop up unexpectedly that the school administrators or board members feel should not be printed. The reported is exhorted "Don't use this!" or The reporter is exhorted "Don't use this!" or casually labeled "off the record," is included in a news article, or the discussion colors the reporter's interpretation so that it looks like a willful violation of a confidence.

There is room for improvement in public relations. Instead of seeking self-publicity when it is to a board's advantage, there should be a regular distribution of factual reports, a public listing of teacher hirings, and frequent releases of statements of policy and curriculum changes. It is a publicity safeguard for a school executive to hand the newspaper reporter an advance copy of agenda on which the board is passing.

The board that fulfills its obligations in informing the public through the newspapers will be less likely to be criticized by taxpayers and parents who can easily misunderstand the representative functions of the school board.

Antagonism leads to mutual suspicion and distrust. Let's take the heat off "the press" and respect the joint responsibilities of the reporter and the board member. ■

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This is a modern Metalab installation at Old Saybrook High School, Old Saybrook, Conn.

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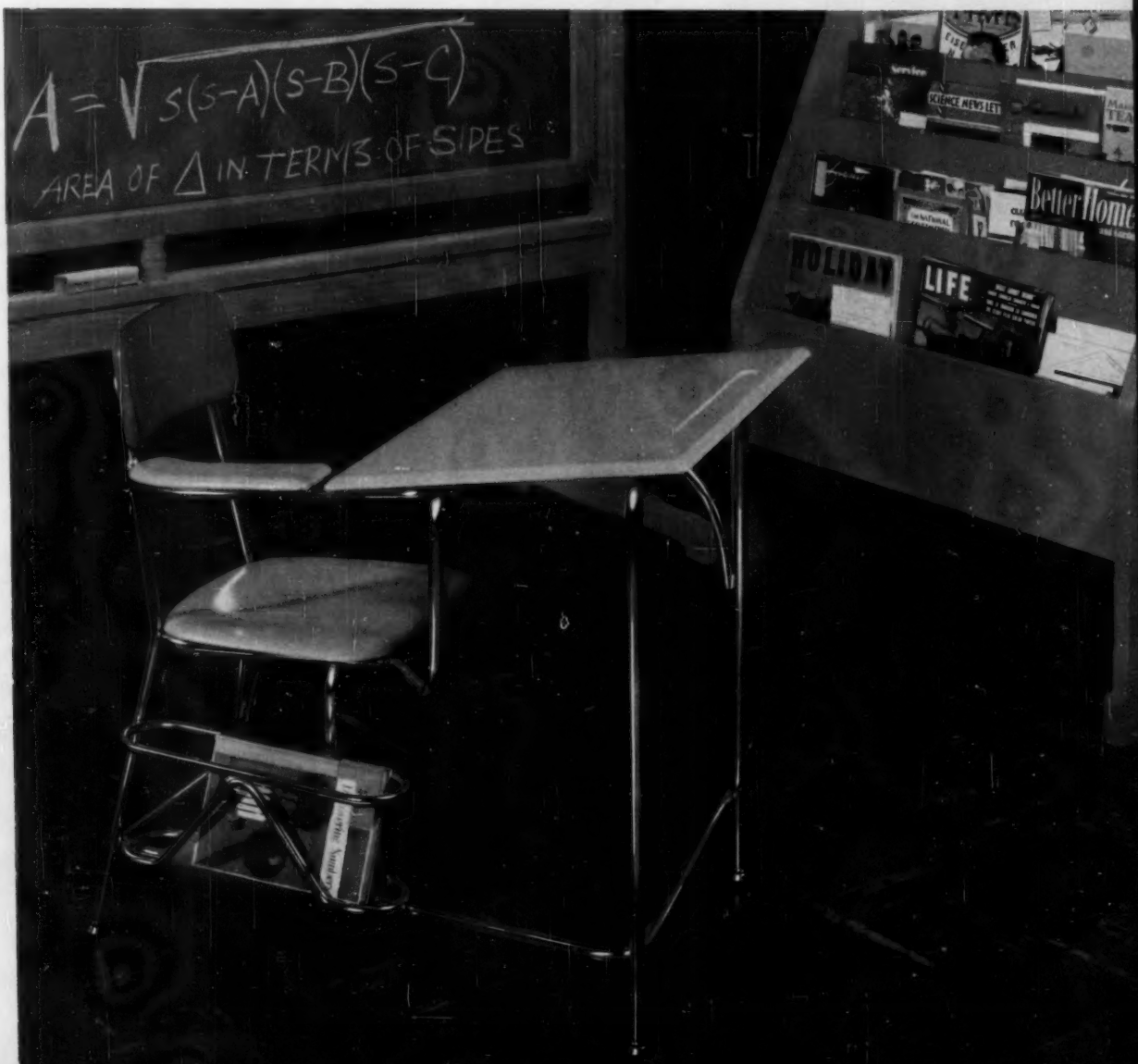

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PERSONAL NEWS

CALIFORNIA

Dr. Earl Howard Floyd has been appointed assistant superintendent of instruction at Pasadena to succeed A. Roland Walker, who has accepted the superintendency at Ventura.

Lester M. Larsen is the new superintendent for Woodside District.

Victor Bottari has been named president of the Berkeley school board, to succeed Mrs. Alice W. Sackett.

John J. King is the newly elected president of the Oakland school board.

The Los Angeles board has elected **Mrs. Georgiana Hardy** as its president to serve during 1958–59. She succeeds Dr. Hugh C. Willett.

DELAWARE

Mrs. Margaret M. O'Neill has been re-elected president of the Smyrna board. **Francis B. Gebhart** was re-elected vice-president.

GEORGIA

Dr. R. W. Stephens is the new deputy superintendent at Atlanta.

David W. Self is the new superintendent in Phenix.

ILLINOIS

Clifton Bell, of Farmington, Mo., has accepted the superintendency at Galesburg.

Arthur E. Wright has taken up his duties as superintendent at Barrington, succeeding F. C. Thomas.

Ray C. Todd, of Fairbury, has assumed the superintendency in DuQuoin.

Paul A. Grigsby, of Granite City, has taken a position as Associate Professor of Education at Central College, Fayette, Mo.

Mrs. Mariesta Bloom has been elected president of the Peoria board, succeeding Robert Jamieson.

INDIANA

Glen Bretz, of Tell City, has been elected superintendent in Vincennes.

Ralph Harbison, of Attica, is the new superintendent at Knox.

IOWA

Walter E. Arnold has accepted a three-year contract as superintendent in West Burlington.

Melvin Kupferschmid has been elected superintendent of the West Central Community District.

Supt. J. C. Heglan has been re-elected at Marshalltown, with an increase in salary.

KANSAS

Robert Musgrave, of Madison, has taken the superintendency at Marion.

KENTUCKY

Ted C. Gilbert has been appointed assistant state superintendent of instruction for Kentucky.

MASSACHUSETTS

Eric N. Dennard has been elected superintendent in Newton, to succeed Harold Gores.

Fred C. Riel, of Hadley, has been elected superintendent at Billerica.

MICHIGAN

Dr. R. C. Totallack has been re-elected president of the Iron River Board.

Ralph Johnson is the new president of the Ludington board.

O. J. Dunlap has been re-elected president of the Pennfield board.

Rex B. Smith, of Otsego, has assumed his duties as superintendent at Troy.

Philip E. Slayton is the new president of the Battle Creek board, succeeding W. J. McQuiston.

Adolph B. Haist, of Saginaw, has accepted the superintendency at Negaunee.

Russell Fairles is the new president of the East Lansing board.

Lloyd C. Te Selle, of Fremont, Neb., has taken the superintendency at Lakeview.

Glenn H. Griffin has been re-elected president of the Pontiac, school board.

Dr. Everett N. Luce has been re-elected for a fifth term as president of the Midland, board.

Richard A. Cooley has been re-elected president of the Port Huron board.

Lloyd W. Sexton, of Cherokee, Neb., has been elected superintendent at Fremont.

Thomas R. Bowman has succeeded D. J. Heathcote as superintendent of the Kalamazoo schools. The latter has retired after 43 years of service.

Albert Seelye was elected president of the Lapeer board. Other officials are: vice-president, **R. O. Stern;** secretary, **E. C. Rasmussen;** treasurer, **Gordon Hall.**

MINNESOTA

Einar T. Peterson is the new president of the Minneapolis board.

MISSOURI

A. D. Fullerton, of Clarence, has accepted the position of principal of the Ophelia junior high school in Kirksville.

Thomas J. Norris is the new superintendent at Sedalia.

Harry M. Talbot succeeds Frank Heagerty as superintendent at Lebanon.

NEBRASKA

Galen B. Cheuvront, of Cody, is the new superintendent at Butte.

(Concluded on page 74)

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PERSONAL NEWS

(Concluded from page 73)

M. A. Syllivan is the new superintendent at Gering, succeeding Russell Wilkie.

NEW JERSEY

Dr. I. Newton Cowan, of Palmyra, has been elected superintendent at Roselle Park.

William L. Manze, of Penns Grove, has been elected superintendent at Bridgeton.

John B. Geissinger, of Somerville, has been elected superintendent at Tenafly.

Robert B. Norris is the new superintendent at Freehold.

NEW MEXICO

Allan Rollie is the new president of the Gallup-McKinley county school board.

NEW YORK

Dr. John B. Smith is the new superintendent at Greenwich.

OHIO

Fritz F. Jacobs, of Utica, has taken the superintendency at Ashtabula.

David S. Rosenberger, of Brooklyn, has assumed the superintendency at Avon Lake.

Robert W. Mustain is the new superintendent at Green Springs.

Robert Timmons is the new superintendent at Grandview Heights.

OKLAHOMA

Jack Slater has taken the superintendency at Vinson.

Jack Phelps succeeds Ralph Rich as superintendent at Baker.

PENNSYLVANIA

Harry King Heiges is the new superintendent at Collingdale.

Donald W. Dunnan, of Meadville, has taken the superintendency at Springfield, Ill.

Harold R. Remeike has been appointed to complete the term of Secretary Vincent Beard, of Pennsburg, who has resigned.

Don Glass is the new superintendent at Uniontown, succeeding Fred E. Bryan, who will head the schools of Harrisburg.

RHODE ISLAND

Arthur T. Coogan, Jr., of Herndon, Va., has assumed the position of superintendent at Narragansett.

SOUTH DAKOTA

John Griffin has been elected president of the Sioux Falls board.

TEXAS

Elmer C. Watson has succeeded John Criner as superintendent at Amherst.

Albert L. Fuller, of San Marcos, succeeds Otto W. Longlois as superintendent at Christoval.

R. N. Pierce, of Desdemona, is the new superintendent at Ackerly.

VIRGINIA

Morris W. Whitaker has been elected president of the Lynchburg board, and **William S. Mundy, Jr.,** was named vice-president.

Dr. Joseph B. Johnson has been elected assistant superintendent in charge of instruction at Arlington.

WISCONSIN

Dale Thompson has been re-elected president of the Beloit board.

Dr. Robert H. Karraker has been elected president of the Janesville board.

WYOMING

Blaine Ronne, of Oshkosh, Neb., has taken the superintendency at Torrington. **Paul Kipper** succeeds Mr. Ronne at Oshkosh.

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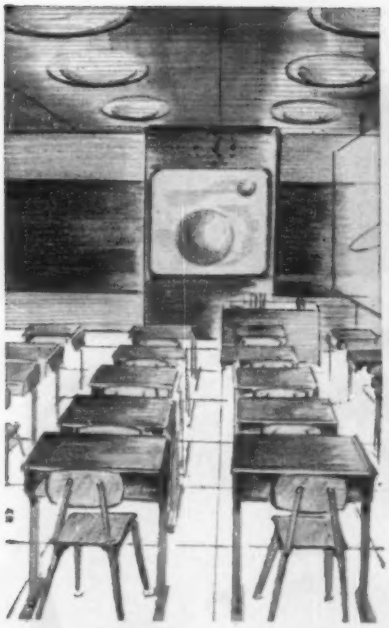

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THE SCHOOL SCENE

(Continued from page 8)

Under a rule adopted in December, 1955, it was ordered that any failing or problem student, who becomes involved in a serious infraction of the law, shall be automatically suspended from school until the situation is clarified to the satisfaction of the school board and faculty.

SCHOOL POLICY AND ADMINISTRATION

EXPERIMENTAL SPACE-AGE COURSE

Modifying the curriculum to meet the challenge of our space age, the Hewlett High School, in School Dist. No. 14, Hewlett, N. Y., plans to offer an experimental course for a selected group of ninth-year students this September. The course will integrate social studies and science content to meet the need for a combined approach to today's problems, to offer better preparation for later high school content, and to provide the best possible training for students in independent research and group study.

Two teachers, one a science teacher and one a social studies teacher, will teach two periods a day for a year, building correlated units of content in such subjects as food, energy, transportation, ecology, and earth in space. Students may take this course in preference to general science, civics, and economic citizenships. The class will be provided with a reference library, a science demonstration table, and a budget for the purchase of materials. Field trips will be made to local places of interest, and local men from the colleges will visit the classroom and make suggestions.

COLLEGE PREPARATION

One way that the rural school district can provide for students who wish to go to college is to "finish off" the basic college preparatory curriculum with a special "college preparatory course."

In the Northwestern schools in Springfield, Ohio, according to superintendent R. O. Brinkman, this course requires above average academic standards for admission plus acceptance by the faculty. The course includes work in taking tests, term paper writing, library research, college selections. The second semester is devoted to specific advanced instruction in such basic areas as composition, reading techniques, science and mathematics, etc. A study of colleges and available scholarships with assistance from the staff closes the course.

Small-group instruction with considerable individual guidance are features of the course.

ADOPT NEW POLICY

The board of education of Springfield, Mo., has adopted a new policy on school system-professional organization relationships. The policy implies neither approval nor disapproval of any professional organization, but declares neutrality. The plan implies exemption from pressure from all directions, whether from those in administrative or supervisory authority or from other teachers.

All faculty members will have access to complete, free, unbiased facts about services, contributions, and opportunities offered by any or all organizations. Printed and general informational material is to be made available to all.

Each professional organization shall respect the premises of the school, the position of the

(Continued on page 80)

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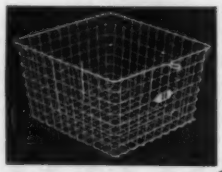

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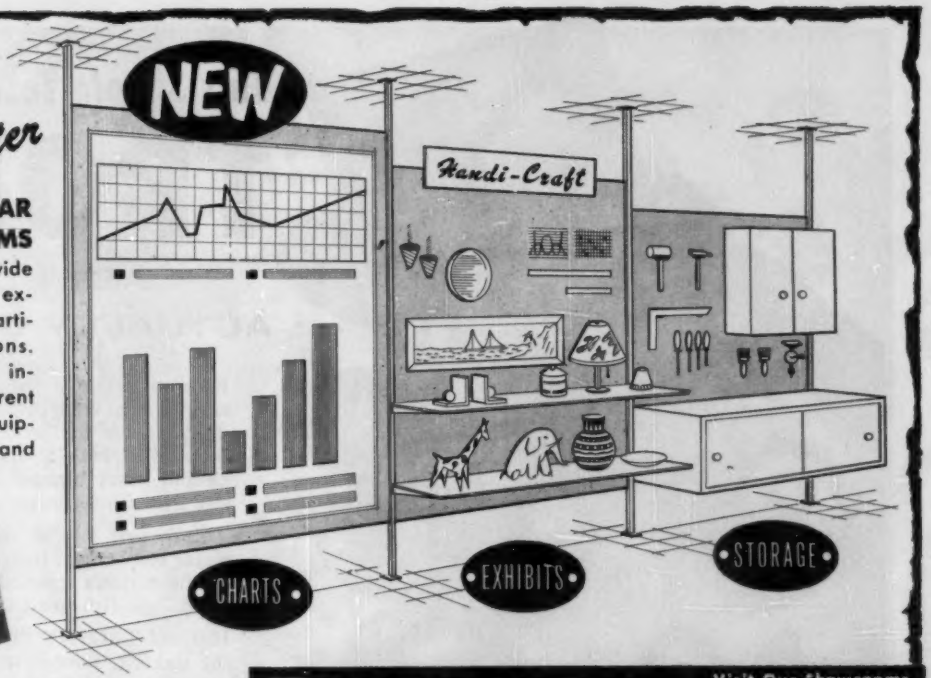

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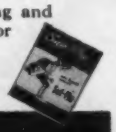

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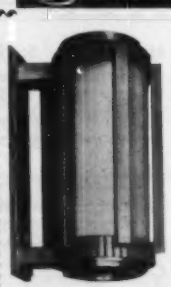

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THE SCHOOL SCENE

(Continued from page 76)

administrative and supervisory officers, and the status of the teaching profession, as well as the integrity of each individual teacher.

Official faculty meetings, when all are obliged to attend, shall not include items of controversy or propagandizing of competing organizations.

Brief reports of activities of professional organizations will be deemed proper, if presented with the approval of a majority vote of the faculty, and if equal opportunity is afforded all professional organizations.

THE KINDERGARTEN HASSLE

To solve the kindergarten entry age hassle in New Jersey — a debate concerning when the entry cutoff day would be — the board of education of the Borough of Waldwick, acting upon the advice of superintendent John J. Finnessy, established an entry age of 5 on or before October 1 and set up a plan of making the first three grades "ungraded." Each grade has two steps. It is possible for any child to complete the entire six steps of the first three levels (grades) within two years instead of the usual three years.

Parents in New Jersey, and particularly in Bergen county, resented a modification of the kindergarten entry age to five by October 1 when the previous cutoff day had been December 1. Waldwick's plan is a compromise of cutoff time and will permit the advanced student to enter school later yet complete his first three years earlier.

INCREASING BOARD MEETING ATTENDANCE

A device at "stimulating attendance at school board meetings was introduced recently when the schools of District 10, Mineola, N. Y., began mailing 25 personal invitations to individual residents inviting them to attend the next board meeting. Five invitations were sent also to members of the professional staff each month. The program is under the direction of John C. Seiferth, director of school-community relations, according to superintendent Raymond Ostrander.

STUDENT CAR RESTRICTIONS

How can you reduce accidents involving student automobiles? In Pike County, West Va., the county school board has gotten results by ruling that any pupil who drives to school must leave his vehicle parked until the close of the day. The board also cut traffic jams at interschool games by ruling that athletes and other athletic personnel, such as cheer leaders, must travel to and from games in vehicles specified by the school principal.

SCHOOL STAFF

PUPIL-TEACHER AIDE PROGRAM

The board of education of Delmar, N. Y., early in 1956-57 decided to employ mature women to serve as pupil-teacher aides. The Slingerland elementary school, which had two sections in each grade, as well as a special class for the retarded pupils, was selected as the pilot school for the experiment. One woman was employed to supervise the two sections of each grade, and one additional woman was delegated to care for the special class pupils. Their duties were defined as those of supervisors of children during both the lunch and play periods of the noon recess, and their work consumed two hours each day. One teacher, on a rotating basis, and one

(Continued on page 82)

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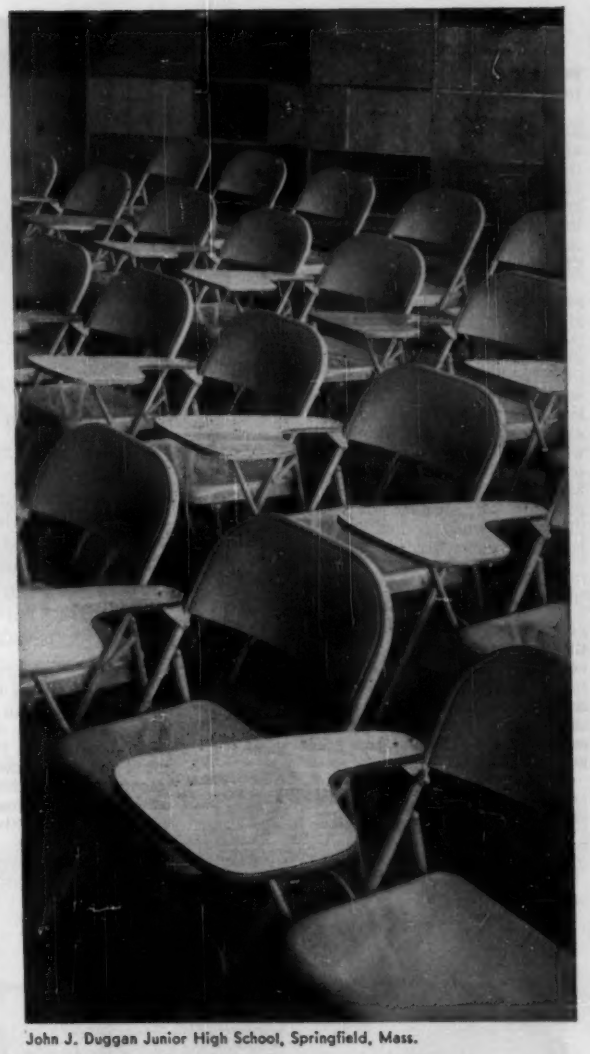

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THE SCHOOL SCENE

(Continued from page 80)

principal were on duty during the noon period to give assistance in case of difficulties.

The pupil-teacher aides had their own faculty room where they met daily to confer among themselves and with the principal and teachers. The meetings have been valuable for bringing about better understanding of children, establishing uniform procedures, absorbing information about school policies, and receiving instructions from other members of the faculty.

The pupil-teacher aide program has been successful because the building principals have given it continuous supervision. The principals conduct workshop sessions for the aides prior to the opening of school to acquaint them with each other and the details of the work ahead of them. These sessions are followed by almost daily meetings between the aides and the principals during the first five weeks of school. Later weekly meetings are scheduled so that the teacher aides can learn new things to interest the children. The principals are on constant duty in the schools during the noon period to give consultation and help where needed.

PREPARING FOREIGN LANGUAGE TEACHERS

In Buffalo, N. Y., during the spring of 1958, the board of education provided in-service courses to help teachers interested in teaching foreign languages to elementary school pupils. At present, there are only a few classes in the subject in the elementary grades, and it is proposed to expand the program as soon as additional teachers are available.

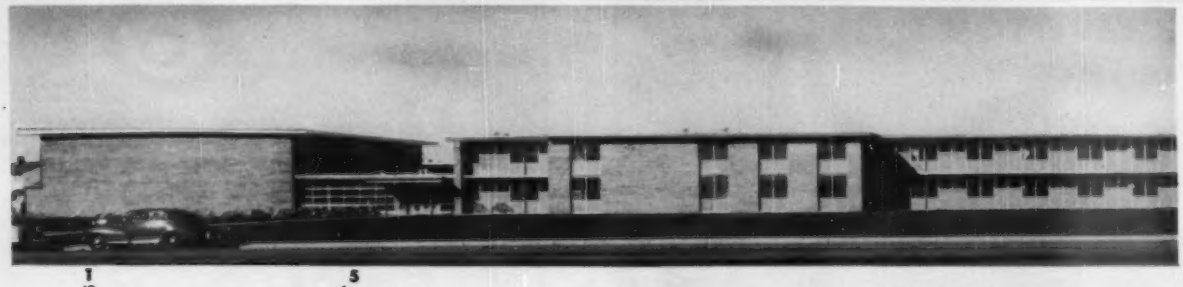
PARENTAL PRESSURES

Parental "pressure" in and out of the classroom is one of the greatest nuisances to new teachers, according to superintendent William S. Schmidt of the Prince Georges County, Md., schools. In a recent report, he said that this interference is frightening many inexperienced but badly needed teachers. The superintendent appealed to parents to make new teachers feel welcome and to curb interference with classroom activities. He said that some parents periodically sit in on their children's classes and offer suggestions about study content and procedure.

"A young teacher just out of college doesn't know how to cope with something like that," Schmidt said. "Some well-intentioned parents don't know they are disrupting a carefully planned and well-thought out program of education."

DISTRICTS TO CONSOLIDATE

Considering a proposed consolidation are the Akron and Fairgrove, Mich., school boards. The consolidation, if passed, will provide a school district of approximately 100 square miles with an eventual valuation of ten million dollars and will provide a well-rounded educational program with a much-needed testing and guide program. Shown working on the problems are, back row (left to right): Donald Bradley; Harold Pike; Richard Campbell; Quintin Cramer, Akron superintendent; LeRoy R. Watt, Fairgrove superintendent; Leonard Ruppert; (front row) Milford Culbert; Stanley Volk; Fred Bach, Akron board president Clifton Metcalk, Fairgrove board president; John Kirk; Wayne Harrington.



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6 DURASTEEL CHALKBOARDS in SEVEN COLORS
7 FABRICORK PLASTIC SURFACE BULLETIN BOARDS
8 EXTRUDED ALUMINUM CHALKBOARD TRIM
9 CLARIDGE FACTORY BUILT CHALKBOARDS and BULLETIN BOARDS
10 CLARIDGE WASHABLE CHALKBOARDS and BULLETIN BOARDS
11 VERTICAL SLIDING CHALKBOARDS
12 CLARIDGE REVERSIBLE CHALKBOARDS and BULLETIN BOARDS
13 EXTRUDED ALUMINUM DISPLAY and TROPHY CASES
14 EXTRUDED ALUMINUM BULLETIN BOARDS
15 CLARIDGE SWING LEAF DISPLAY BOARDS

CLARIDGE has made great strides in modernizing and improving chalkboard and bulletin boards to keep pace with the demands of present day education. Over 35 years experience enables us to approach the problem on a know-how basis. Our one ultimate purpose: *the finest chalkboards and bulletin boards with greatest educational value.* Thousands of schools the world over, and many leading architects use CLARIDGE as their standard of quality.

If you've a chalkboard or bulletin board PROBLEM . . . for new building or replacement or remodeling . . . send for Catalog 758. It contains a vast amount of information which can help you solve your problem.

SCHOOL BUILDING AND OPERATION

NEW LABORATORY SCHOOL

The recently completed Edith Bowen school in Logan, Utah, provides laboratory experiences in elementary education for students of the school of education of Utah State University and serves first to sixth graders during the regular school year. In the summer months, mixed grade classes and classes for the exceptional child are the main concern of the laboratory school.

The building has seven classrooms, a special room for campus purposes, and a library which serves school children and university students alike.

The plant was built with funds appropriated by the state legislature to establish on the campus an elementary teacher laboratory.

DADE COUNTY'S TROPICAL JUNIOR HIGH SCHOOL

The Tropical junior high school in Dade County, Fla., is a modified campus plan for 1400 students scheduled for completion this fall. The 11 "buildings" include two 14-classroom buildings; a general shop, art and crafts, and choral building; a laboratory for speech, science, and homemaking; a "special instruction" building with eight classrooms; a cafeteria; a library; a physical culture building; an administration building; an auditorium; and a band building. Architect is B. Robert Swartburg, Miami Beach.

SCHOOL BUSINESS

CHICAGO FINANCING

The Chicago, Ill., board of education has adopted a policy under which all borrowing of funds for school use is done on a competitive basis. Not only permanent school bonds for building construction are sold to the highest bidder, but tax-anticipation warrants are negotiated with local banks and investment houses. In the spring of 1958, a syndicate of "Loop" banks offered to buy warrants worth $7 million at 2½ per cent interest. Investment companies when invited to bid offered a price to cost 2 per cent interest. Another lot was later sold to the same group at 1.70 per cent. The board is seeking authority from the state to issue short-term notes which will have a higher standing in the market and should cost a lower rate of interest.

SCHOOL BONDS

The Research Offices of the New York State Education Department is keeping in close touch with the voter reaction to school financial measures as they are proposed. The department has attempted to follow up and report on financial referendums by six-month periods, and the present report covers the first half of 1958.

During the first half of 1958, the report states, 131 bond issues were referred to the voters in 101 districts, which included 14 issues in 9 city districts, 34 issues in 25 village districts, and 83 issues in 67 supervisory districts.

Of the 131 bond issues proposed, 84 passed, and 47 failed of passage. The total amount of bond issues passed was $70,441,052, compared to $66,806,190 which failed. Of the 84 approved proposals, 16 had failed on previous occasions.

Plaza Junior High School, Hutchinson, Kansas
Architects: Maan & Company, Hutchinson, Kansas
Contractors: L. R. Foy Construction Co.

Chalkboard and Cork Bulletins . . . longest service at lowest cost!

Claridge PRODUCTS and Equipment Inc.
HARRISON, ARKANSAS

☐ Please send catalog ☐ Send samples or additional data on items circled below:

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10 11 12 13 14 15

Name_____
School_____
Address_____
City_____ Zone_____ State_____

News of Products for the Schools

ELECTRONIC SYSTEM COMBINES SOUND, TV, AND SAFETY UNITS

An ingenious network combines communication, alarm, and television systems into a single electronic system, called MCS (Multipurpose Communication and Signaling) system. The new system is just a preview of electronic cost-saving that will be available to

MCS Control Board

the school of the future, according to the manufacturers, DuKane Corp., St. Charles, Ill. A single installation features at least six separate systems: 1) Fire or emergency alarm and panic control; 2) Program clock system to sound class-breaks and control classroom clocks; 3) Central sound, public address and program distribution; 4) Private telephones for two-way communication between office and classrooms; 5) Television program distribution for both regular commercial channels or closed circuit programs originating in the school; and 6) School-to-home equipment for teaching bedridden or invalid pupils. All units are controlled by the same central "nerve center." By installing one combination unit, drastic savings can be made over the cost of installing separate systems, say the manufacturers. Moreover as the school grows, provision can be easily made for adding new electronic services using the same basic set of wires and conduits. The entire MCS system is available for installation in schools now; or parts of the system can be installed with provision for future installation of the remaining features, at a substantial saving in the over-all wiring costs. Send for more details.

(For Further Details Circle Index Code 0153)

TELESCOPING WORK TOWER

An electro-hydraulic work tower, manufactured by Safway Steel Products, Inc., Milwaukee 13, Wis., telescopes to a new low size. The height of the work tower, called Moto-Lift, telescopes to pass through standard doorways (6 ft. 8 in. high) or elevators, and contracts to 30 in. by 80 in. in width. Maximum platform extension is 17 ft., enabling an average size man to work comfortably as high as 23 to 24 feet above the floor. Moto-Lift uses foot buttons to control both the rise and descent of the machine. The work tower is offered with two types of pump motors for either plug-in or battery operation. If desired, the Moto-Lift can be furnished with a built-in battery charger or with an explosion-proof motor, electrical connections, and fittings.

(For Further Details Circle Index Code 0154)

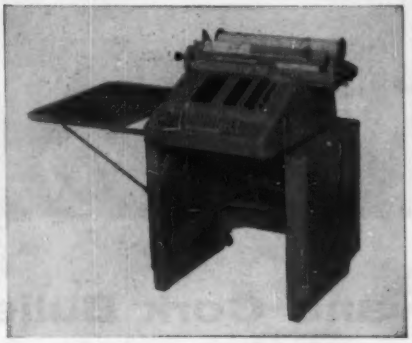
SMALL MOWER FOR LAWNS, WEEDS

A rugged, all-purpose mower is the new Hi-Wheel 25 Convertible model by Falls Products, Inc., Genoa, Ill. This utility mower cuts a 25 in. swath of lawn and easily converts to a light brush and weed cutter. It mows close to shrubs, trees, buildings and other obstacles, and moves easily over rough, uneven ground, through ruts and sand. The mower features extra large 20 in. rear wheels, and 3½ h.p. heavy-duty Clinton engine, and all-steel construction. Remove the front "side discharge" grass shield and attach a special brush guard to convert into weed cutter. It is available in both hand-operated and self-propelled models.

(For Further Details Circle Index Code 0155)

SCHOOL ACCOUNTING SYSTEM

After consultation with public school administrators, the Burroughs Corp., Detroit 32, Mich., has developed a mechanized accounting system for schools. The Burroughs



Multipurpose Recordkeeping

Sensimatic Accounting machine will handle the following accounting jobs: revenue, budgets ledgers and reports, general funds, warrant (check) writing, payroll, and student activity accounting. According to the manufacturer, it will prepare all related records in the same operation, perform computations and most of the entries automatically, and prove the accuracy of each and all amounts. Send for descriptive literature.

(For Further Details Circle Index Code 0156)

OFFICE DUPLICATING AID

The Heyer Corp., Chicago 23, Ill., recently introduced a new device which promises to simplify office duplicating procedures. Named the Superscope, it provides a work surface and lighting for drawing, lettering, and writing on all stencils, spirit and gelatin masters

Photocopy Table

and paper offset plates. It also serves as a light table for retouching negatives. The versatile device is portable, folds compactly, and has its own storage carton. The Superscope features an adjustable light, a plastic locking T square, and steel clamps that will hold material tightly in place. Four folding legs enable the scope to be used in either a standing or seated position. A full 10 by 18¼ in. ceramic coated diffusing glass accommodates 9 in. or standard size stencils interchangeably.

(For Further Details Circle Index Code 0157)

DESK DOUBLES FOR STUDENT OFFICE

A new student's desk which provides the student with an "office" of his own, has been announced by American Desk Mfg. Co., Temple, Tex. Called the Quadraline Series 1300 Jr. Exec desk, (illustrated here with the 500 series chair), the unit permits staggered seating and other flexible group arrangements.

Plenty of Book Room

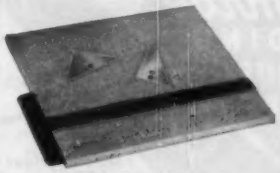
The desk features a convenient notebook shelf, recessed utility tray, and a lower compartment for textbooks. The comfortable unit offers a large work surface, extra knee room, and freedom of movement. This desk and chair combination, and other pieces in the firm's school furniture line, are constructed with square tubing; contour, hardwood chair backs and seats; plastic marproof working surfaces; chairs with self-adjusting tilt backs; and rubber mounted swivel glides that both absorb shocks and compensate for uneven floors. All pieces of the school equipment line are available in baked enamel, finished in soft modern colors.

(For Further Details Circle Index Code 0158)

(Continued on page 86)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

MAYLINE



STUDENT DRAWING KIT

Professional Equipment For Your Classroom!

Because you are using Mayline equipment you know Mayline builds fine classroom furniture. Consider the value, therefore, you would receive from professional equipment in your classroom.

Write for Catalog 9-A. Look into the Professional Drawing Kit, 4-post drafting tables in steel or wood base, 5-drawer metal plan file, and parallel ruling straightedges. Write today for Catalog 9-A.

C 7703B DRAFTING TABLE

Symbol of MAYLINE Superiority

MAYLINE COMPANY
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SHEBOYGAN, WIS.

MAYLINE

MAYLINE

MAYLINE

BOSTON KS
for general classroom use

PERFORMANCE—unequalled
IMPROVEMENTS—positive mechanical lock on 8-size pencil guide
CLEANLINESS—no fall-out, nickel-plated receptacle stays put
STRENGTH—rugged "bridge-like" frame, steel rack
EFFICIENT—25% more cutting edges, consistently produce clean, sharp points without waste

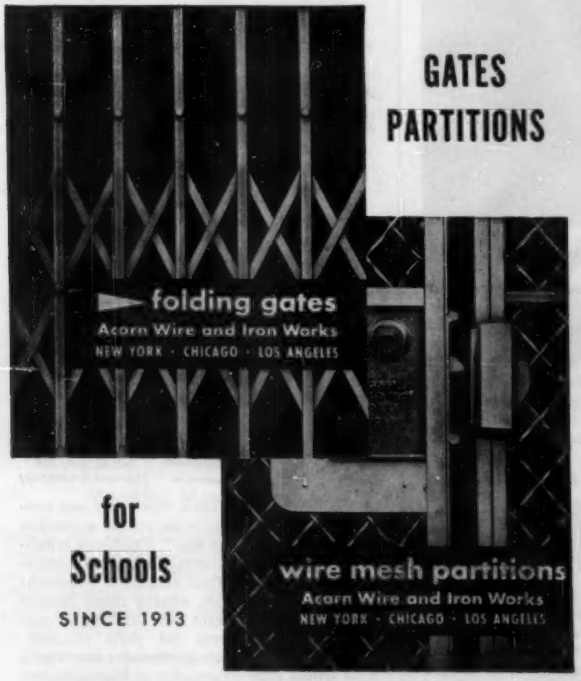
BOSTON RANGER
for drawing rooms and heavy duty

- 3 points—outside adjustment
- heavy-duty double bearings for Speed Cutters assure perfectly centered points
- easy-locking stainless receptacle
- takes 6 pencil sizes—no waste

Free comprehensive report on sharpeners in schools, Booklet B.

BOSTON PENCIL SHARPENERS

C. HOWARD HUNT PEN COMPANY
Camden 1, New Jersey



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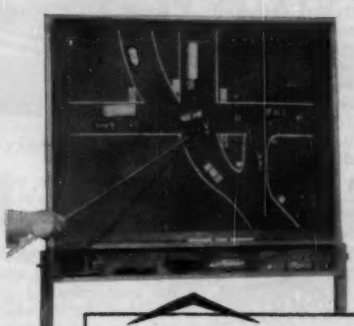
Magnetic
TRAFFIC EDUCATION EQUIPMENT



The ideal equipment for traffic education and safety programs. Any road, street or intersection may be drawn with chalk on the metallic (chalkboard) or drawn on paper and attached to the chalkboard. The reverse (cork) side is a bulletin board. Board and stand are constructed of natural oak. Board measures 30 x 40 inches. All screws recessed.

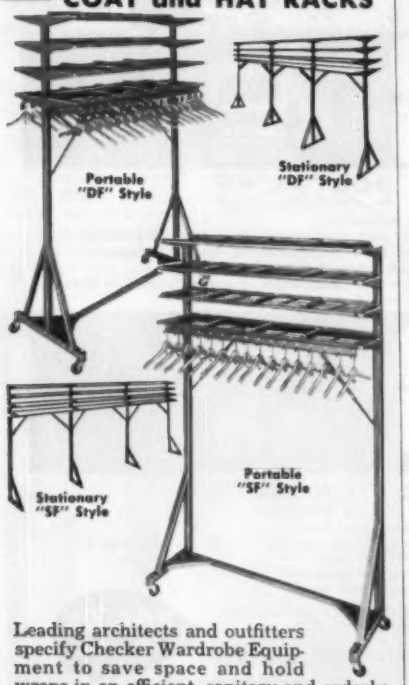
Forty one magnetized articles, including cars, trucks, pedestrians, traffic lights and traffic signs are provided to make demonstrations easy, authentic and dramatic. Any traffic situation may be graphically presented.

This equipment has long enjoyed national popularity with attorneys and courts for demonstrative presentation before juries in traffic cases.

Complete information on request, without obligation.

COURT KIT Company
P. O. BOX 841 / TULSA, OKLAHOMA

Checker®
COAT and HAT RACKS



Leading architects and outfitters specify Checker Wardrobe Equipment to save space and hold wraps in an efficient, sanitary and orderly manner. Hats rest on high ribbed, slotted shelves. Spaced hangers keep coats apart, open to light and air, visible and instantly available. SF Style units accommodate 4 or 5 persons per foot. DF style units accommodate 8 or 10. 3'2", 4'2" and 5'2" long "portable" units go wherever needed on large casters. "Stationary" units come on glides and can be anchored to floor. "WM" Style racks mount directly on any wall. All Checker racks are correctly engineered to interlock on left or right and to stand up under a full load. They will not tip over, sag, sway, creak or wobble. Built for lifetime service of strongly welded heavy gauge steel and square tubing and beautifully finished in modern baked on colors. They are vermin-proof and fireproof.

Style WM wall RACKS

Exclusive Checker Features

1. Beautiful lucite numbers snap-on each hat space
2. Add-on shelves spring lock either to right or left
3. Tags now go on hanger hooks
4. Any Checker quickly converted from hanger to hook type or reverse

Write for Bulletin CK-206

VOGEL-PETERSON CO.
1127 W. 37th Street • Chicago 9, Ill.

WANTED: Superintendent of Schools. Union Free School District, adjacent to large city.

Applicants send full particulars of qualifications, administrative experience, salary expected, date of availability if selected, references, age, marital status and all other pertinent information.

Mrs. Marvin C. Herget, Chrmn. of Selection Com.
200 Olmstead Ave., Depew, New York

News of Products . . .

(Continued from page 84)

LOW COST STACKING CHAIR

An economical and lightweight chair has been marketed by the Royal Metal Mfg. Co., New York 16, N. Y. The new chair, called Royal No. 630, weighs only 11 pounds and can be stored in stacks of ten. Heavy gauge all-steel tubular construction promises durability at economy prices. Additional information available upon request to the manufacturer.

(For Further Details Circle Index Code 0159)

AIRTIGHT SOUP DISPENSER

A soup dispenser with sanitary features has been marketed by the Vacuum Can Co., Chicago 12, Ill. It dispenses thick or thin soups, and soups containing solids in balanced

Self-Service Dispenser

proportions. The self-service machine requires no installation, plumbing, or electrical connections. All metal parts on the dispenser are of stainless steel to prevent corrosion, and are welded to prevent leaks. All parts requiring cleaning can be completely immersed without contaminating or damaging the insulating chamber. An optional detachable motor-driven agitator and mounting bracket is also available.

(For Further Details Circle Index Code 0160)

ADJUSTABLE MUSIC STANDS

Adjustable music stands, weighing less than five pounds, are available from the Wenger Music Equipment Co., Owatonna, Minn. The Just-o-matic stands have unbreakable cast aluminum bases, aluminum desks and brackets, with nylon friction-type adjustment devices that permit finger-tip adjustment for height and desk tilt. Three styles of stands are offered in a colorful brushed aluminum trim or the more conventional gray or black.

(For Further Details Circle Index Code 0161)

(Continued on page 87)

Monroe
FOLDING BANQUET TABLES

Direct Prices & Discounts to Schools, Churches, Clubs, Lodges and All Organizations

COMPLETE CATALOG ON REQUEST

TRUCKS FOR FOLDING TABLES

Monroe TS (transport - storage) Trucks make handling and storing of Folding Tables easy and quick. Combination offers.

STEEL FOLDING CHAIRS

Monroe Steel Folding Chairs in attractive range of styles, sizes and prices. Excel in comfort, easy handling and durability. Also full line of non-folding chairs, desks and combinations for classroom, cafeteria and church school use.

PORTABLE PARTITIONS

Monroe's new movable partitions change idle space into useful areas. Smooth Masonite panels, tubular steel frames. Swivel pedestals, casters or glides.

THE Monroe COMPANY
6 Church St. Colfax, Iowa

Just Out!

A realistic appraisal of school problems...

By NEAL GROSS
Harvard University

A challenging new book that every one connected with our American public education system will want to read! Examines conditions arising from many different and opposing views about public education prevalent in most communities, attacks many largely unrecognized problems, and makes interesting recommendations for their solution. Findings are based on anonymous interviews with school superintendents of Massachusetts and school board members.

1958 195 pages $4.75

Send for an ON-APPROVAL copy

John Wiley & Sons, Inc.
440 Fourth Ave., New York 16, N. Y.

News of Products . . .

(Continued from page 86)

STAINLESS STEEL FOUNTAINS

A new line of drinking fountains in stainless steel has been introduced by Just Mfg. Co., Franklin Park, Ill. Recommended for use in schools, hospitals, and institutional buildings of all types, the Just line of drinking fountains is available in a wide range of

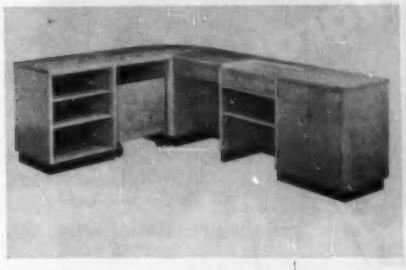
Sanitary Drinking Fountains

styles and sizes. All fountains are 18 gauge stainless steel, of welded seamless construction. Exposed trim is furnished in bright chrome finish. Several models are available featuring single or two bubblers, in semi-recessed or fully recessed or wall hung models. Send for catalog brochure illustrating the fountains and classroom sinks.

(For Further Details Circle Index Code 0162)

MATCHED LIBRARY FURNITURE

For the first time in its 76 years of furniture making, the Buckstaff Co., Oshkosh, Wis., has introduced a complete new line of hard maple library furniture. The line includes shelves, display cases, newspaper and magazine racks, card catalog cabinets, book trucks, desks, tables, chairs, stands, and



Modular Maple Units

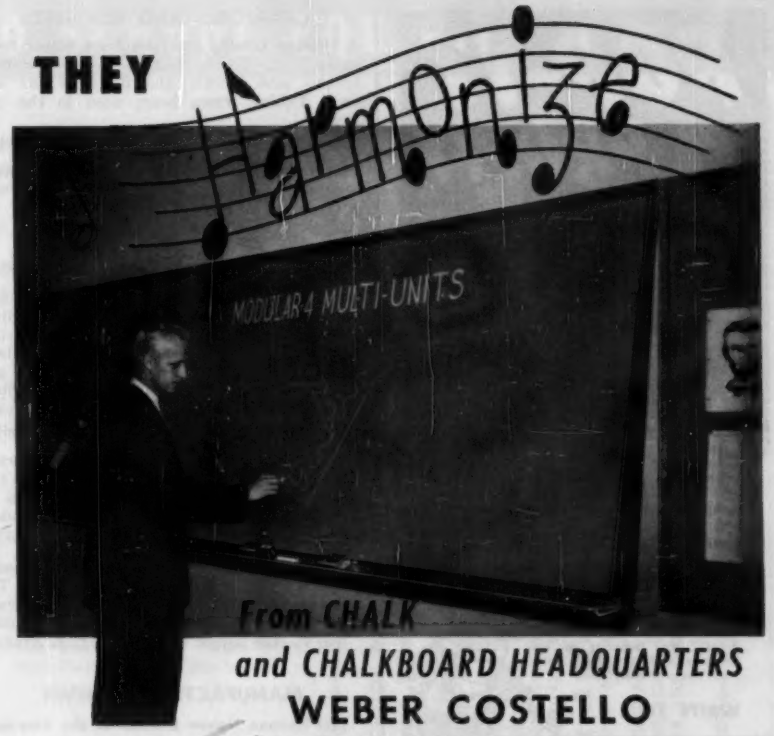
lounge and office furniture. The furniture is constructed of hard maple in either a natural or autumn maple finish and is available with either conventional or turned legs. For complete information on units and styles, write to the manufacturer.

(For Further Details Circle Index Code 0163)

(Concluded on page 88)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

THEY Harmonize

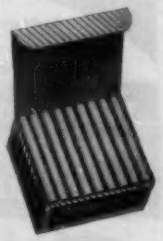


and CHALKBOARD HEADQUARTERS

WEBER COSTELLO CHALKBOARDS

A complete line for every classroom need — every budget — each the finest quality in its class! Hyloplate, Sterling and Hyloprest Chalkboards are standards of quality. Modular-4 Multi-Units can be moved from wall to wall, have matching project boards and cork bulletin boards.

WEBER COSTELLO CHALK



ALPHA is America's "white" white, No. 1 dustless chalk. P/C ALPHASITE is the golden ivory, polychromatic, sight-saving chalk, designed by the folks who make chalkboards, provide smooth writing and easy, complete erasing.

WEBER COSTELLO ERASERS

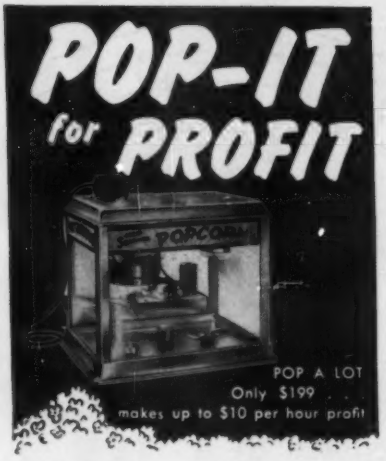
From the top quality "Double Sewed" Costello Eraser, on down thru the line, every one is constructed of quality felts and designed to do a thorough job.

For TOPS in quality, performance and overall economy, look to the one firm that manufactures *all 3* — Chalkboards, Chalk and Erasers.

Weber Costello
World's Finest

Send for Catalog GA-57
from Chalk and Chalkboard Headquarters

WEBER COSTELLO COMPANY
CHICAGO HEIGHTS, ILLINOIS
Manufacturers of: Chalkboards, Chalk, Erasers, Art Material, Maps, Globes.



The finest in popcorn machines today, POP A LOT is inexpensive (only $199 not $500 to $1000 as most popcorn units) . . . easy to use and operate . . . fully guaranteed . . . light weight and easily transported. Use POP A LOT at school bazaars, athletic events, assemblies, meetings, etc., also as a welcome addition to lunchroom facilities.

For full information on the POP A LOT and supplies to use (popcorn, "Tastee Pop" oil bars, megaphones, etc.)

WRITE TO . . .

GOLD MEDAL PRODUCTS CO.
318 E. THIRD ST. • CINCINNATI 2, O.

CATALOGS AND BOOKLETS

A 16-page catalog available from Nissen Trampoline Co., Cedar Rapids, Iowa, introduces several new models and describes the new Oval Tubing frame being used in the new designs.

(For Further Details Circle Index Code 0164)

The Gallaher Co., Omaha 31, Neb., offers a brochure presenting complete information and a thorough résumé of the advantages of the reinforced Fiberglas application to power roof exhausters.

(For Further Details Circle Index Code 0165)

Standards for Library Binding and Prebinding, issued by the Library Binding Institute, Boston 9, Mass., are now available in separate pamphlets. The purpose of these pamphlets is to eliminate confusion between binders and their customers concerning minimum specifications and to insure full benefit from purchases.

(For Further Details Circle Index Code 0166)

Specifications available from the Witt Cornice Co., Cincinnati 9, Ohio, describe sizes and uses of the company's new dollies. Details on Witt brand cans and drums are also included.

(For Further Details Circle Index Code 0167)

Diebold, Inc., of Canton, Ohio, has just released a catalog describing steel storage files. The new catalog pinpoints the featured advantages of the company's line of modern files.

(For Further Details Circle Index Code 0168)

MANUFACTURER'S NEWS

The **Herman Nelson Division of the American Air Filter Co.**, has revealed plans for a new addition at its Moline, Ill., plant. It is said that the new building will increase the present plant facilities by more than 50 per cent.

Metalab Equipment Co., and the parent company, **Norbute Corp.**, have opened a new plant named the Metalab-Labcraft Division, Norbute Corp. at Elkins, W. Va. The firm manufactures a complete line of wood and metal scientific laboratory equipment and furniture. The main plant is located at Hicksville, L. I., N. Y.

The **Fyr-Fyter Co.**, Dayton 3, Ohio, recently announced the purchase of the **Globe Automatic Sprinkler Co.**, Philadelphia, Pa. The Fyr-Fyter Co. is the manufacturer of more than 1200 fire protection products among which Globe Automatic Sprinkler equipment is now a featured brand name.

On May 15, **John J. Nesbitt, Inc.**, took possession of a three-story, 70,000 sq. ft. building in Philadelphia. The building will be remodeled and equipped to handle the expanded research and development facilities of the firm. For years Nesbitt has been a leading supplier of heating, ventilating, and air-conditioning equipment for schools and institutions.

A new 326,000 sq. ft. plant in Riverside, Calif., has been opened by **Lily-Tulip Cup Corp.** of New York City. The firm produced 10½ billion paper cups and containers in 1957 and had a sales volume of $85 million, according to Walter J. Bergman, president. The firm also has major production plants in Toronto, Canada; College Point, N. Y., Augusta, Ga., and Springfield, Mo.

Decar Plastic Corp., Chicago, has purchased a 12-acre site at Middleton, Wis., a suburb of Madison, for a new woodworking plant which is expected to be in production early next year. The firm which makes Decarlite plastic laminates and tops for school and office furniture, has also rented three new warehouses for storage of raw materials.

Institutions — Schools — Hospitals — Industrial Plants — Hotels — Caterers — Camps — Air Lines — Government — Civil Defense — Commercial Feeding Operations.

THE "AERVOID" CENTRAL KITCHEN SYSTEM HAS PROVED ITS WORTH IN ALL FIELDS OF MASS-FEEDING

AerVoiDs provide . . .
Sanitary Vacuum Insulation -
A positive Health Safeguard!

To-day's "Modern" trend toward centralization of food preparation is a milestone toward Economy, Better Quality and Higher Sanitary Standards.

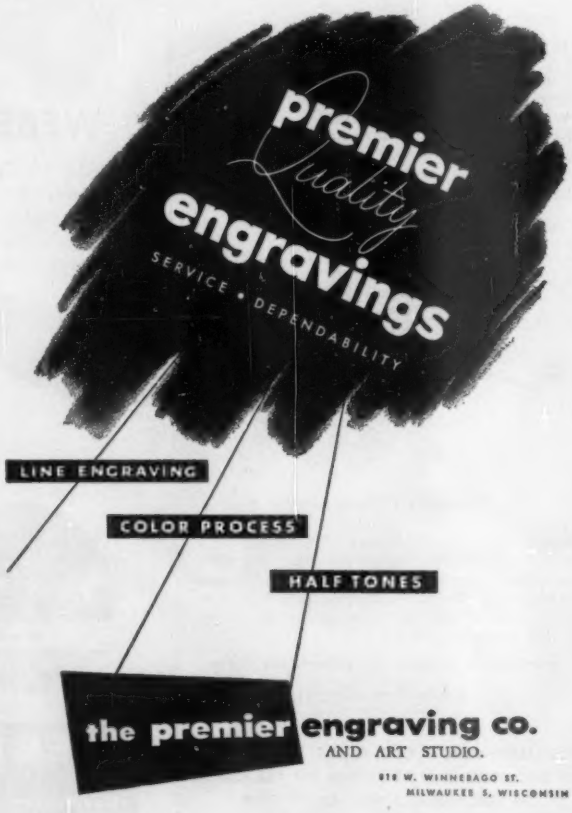
Into this new picture nothing fits like AerVoiD's Portable, Stainless-Steel, High-Vacuum Insulated, food, soup and liquid Carrier-Dispensers. AerVoiDs alone provide the proven quality and durability to survive under rough usage, spreading their cost over a long period of uninterrupted service.

All AerVoiD Equipment, so indicated in our specifications is "In Compliance" with the sanitary construction requirements of the U. S. Public Health Service Ordinances and Codes.

Write for FREE Literature Kit ASB-01
Our Consulting Service is also FREE

VACUUM CAN COMPANY
19 South Hoyne Avenue, Chicago 12, Illinois

AERVOID Vacuum Insulated Hot or Cold Food, Soup, Milk, Coffee and Beverage Carrier-Dispensers



READER'S SERVICE SECTION

INDEX TO SCHOOL EQUIPMENT

GYMNASIUM PLANNING Aids

Literature, catalogs, and other services reviewed in the survey on planning the high school gymnasium (page 51) will be sent to you free. Please encircle the code number of the service on the index card to the right. Sign the postpaid card and your requests will be forwarded to you without obligation.

GP-1 Catalog No. 13-4-1, Berlin Chapman Co.
GP-2 Catalog 34-F-11, Hussey Manufacturing Company, Inc.
GP-3 Gymnasium Seating Catalog, Fred Medart Products, Inc.
GP-4 Catalog GS-657, Safway Steel Products, Inc.
GP-5 Gymnasium Seating Capacity Calculator, Universal Bleacher Company
GP-6 Bleacher Catalog, Universal Bleacher Company
GP-7 Catalog No. A-99-R, Richards-Wilcox Manufacturing Company
GP-8 Folder No. 201, Richards-Wilcox Manufacturing Company
GP-9 Folder No. 191, Richards-Wilcox Manufacturing Company
GP-10 Demonstration of Installations, Richards-Wilcox Manufacturing Company
GP-11 Basketball Backstop Catalog, Fred Medart Products, Inc.
GP-12 Gymnasium Apparatus Catalog, Fred Medart Products, Inc.
GP-13 Catalog No. 108, Nissen Trampoline Co.
GP-14 12 Lesson Plans for Trampoline, Nissen Trampoline Co.
GP-15 16mm Sound Film on Trampolining, Nissen Trampoline Co.
GP-16 Equipping New Installations, Nissen Trampoline Co.
GP-17 Catalog, Up-Right Scaffolds
GP-18 Survey, Up-Right Scaffolds
GP-19 Finishing Northern Hard Maple Flooring the MFMA Way, The Maple Flooring Association
GP-20 Please Don't, Maple Flooring Manufacturers Association
GP-21 Controlling Expansion of Hard Maple Floors, Maple Flooring Manufacturers Association
GP-22 Photographic Folder, Maple Flooring Manufacturers Association
GP-23 How to Treat and Maintain Wood Floors, Hillyard Chemical Company
GP-24 Gym Floor Layout, Hillyard Chemical Co.
GP-25 You Don't Have to "Baby" Your Gym Floor, Hillyard Chemical Co.

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1014	Gold Medal Products Co. Popcorn machines.	88
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1023	**Kimberly-Clark Corporation** Kotex rest room vendors. For information use coupon.	3rd cover
1924	**Krueger Metal Products** Folding chairs and demountable chair trucks.	4
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1028	**Meierjohan-Wengler** Bronze or aluminum plaques. Ornamental lighting fixtures.	80
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1030	**Minneapolis-Honeywell Regulator Company** Control systems.	10 & 11
1031	**Monroe Company, The** Folding tables and chairs. Trucks. Portable partitions.	86
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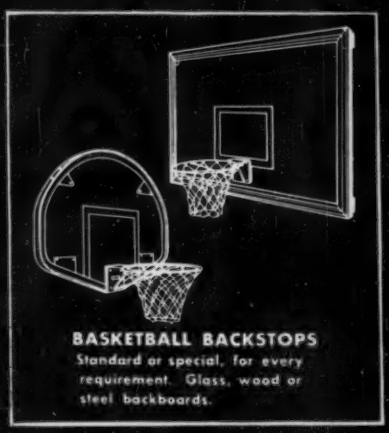

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